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REPORT

of the

SAN FRANCISCO WATER DEPARTMENT

FISCAL YEAR
1956-1957

J. H. TURNER
General Manager and Chief Engineer

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MAMMOTH HOLE FOR SOUTH BASIN--SUNSET RESERVOIR

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SAN FRANCISCO WATER DEPARTMENT

J. H. TURNER

General Manager and Chief Engineer

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This twenty-sixth annual report of the Water Department of the City and County of San Francisco, California, follows the revised form of last year's report with minor changes.

Water consumption for the entire system during the year ending June 30, 1957 averaged 143.0 million gallons daily, an increase of 3.9 million gallons or 2.8 percent over the preceding year. Of this total 89.9 million gallons were used in the San Francisco consumption area, a decrease of 1.4 million gallons per day, equal to 1.5 percent and the balance of 53.1 million gallons daily was used in the suburban consumption areas, an increase of 5.3 million gallons or 11.1 percent. (Some suburban deliveries in northern San Mateo County are included with the San Francisco area figures).

The peak 24 hour demand on the system, occurring on June 24, 1957, was 224.1 million gallons, as compared to the previous all time peak of 217.5 million gallons on June 27,1956.

The low 24 hour demand on the system, occurring on February 24, 1957, was 92.7 million gallons as compared to the 1955-56 low of 83.0 million gallons on September 25, 1955.

The month of June 1957, had the highest daily average demand of any month during the year averaging 179.7 million gallons per day, as compared to an average of 176.7 million gallons per day in June 1956.

Water sales for the year, including municipal non-pay accounts, amounted to $13,994,415, an increase of $206,042 or 1.5 percent over the previous year. Accounts within the City limits increased by $1,676, making a total net sales within the City of $9,936,751 which is 71.0 percent of the Department's total sales. Suburban net sales increased $204,366 for a total suburban sales of $4,057,664, equal to 29.0 percent of the total net sales.

Miscellaneous income totaled $408,528 giving a total gross income for the year of $14,402,943.

The number of active accounts increased from 152,777 on June 30, 1956 to 153,319 on June 30, 1957, a gain of 542 during the year.

Thirty-seven contracts for additions and replacements were prepared during the year, for a total amount of $2,083,000.

A program of watershed lands purchase, protection and control, originating with the Spring Valley Water Company and continuing with the City, has always provided a pure water to consumers with chlorination the only necessary form of treatment. However there is ever increasing pressure for encroachment and use of our watershed lands and only by resisting this pressure and controlling certain allowable uses can the Water Department continue to supply pure, palatable water without resorting to expensive filtration treatment.

In its vigilance to maintain the purity of the water supply this Department has been in close contact with the Division of Highways with reference to the proposed Junipero Serra Freeway and every effort is being made to prevent undesirable encroachment on watershed lands by this Freeway which would jeopardize the quality of the water in Crystal Springs and San Andreas Reservoirs.

During the year 4.3 acres of land were sold and 8.1 acres were purchased, making a net increase of 3.8 acres which results in a total of 62,791 acres under the jurisdiction of the Department on June 30, 1957.

Personnel employment totaled 513 on June 30, 1957 of which 69 were on a temporary basis.

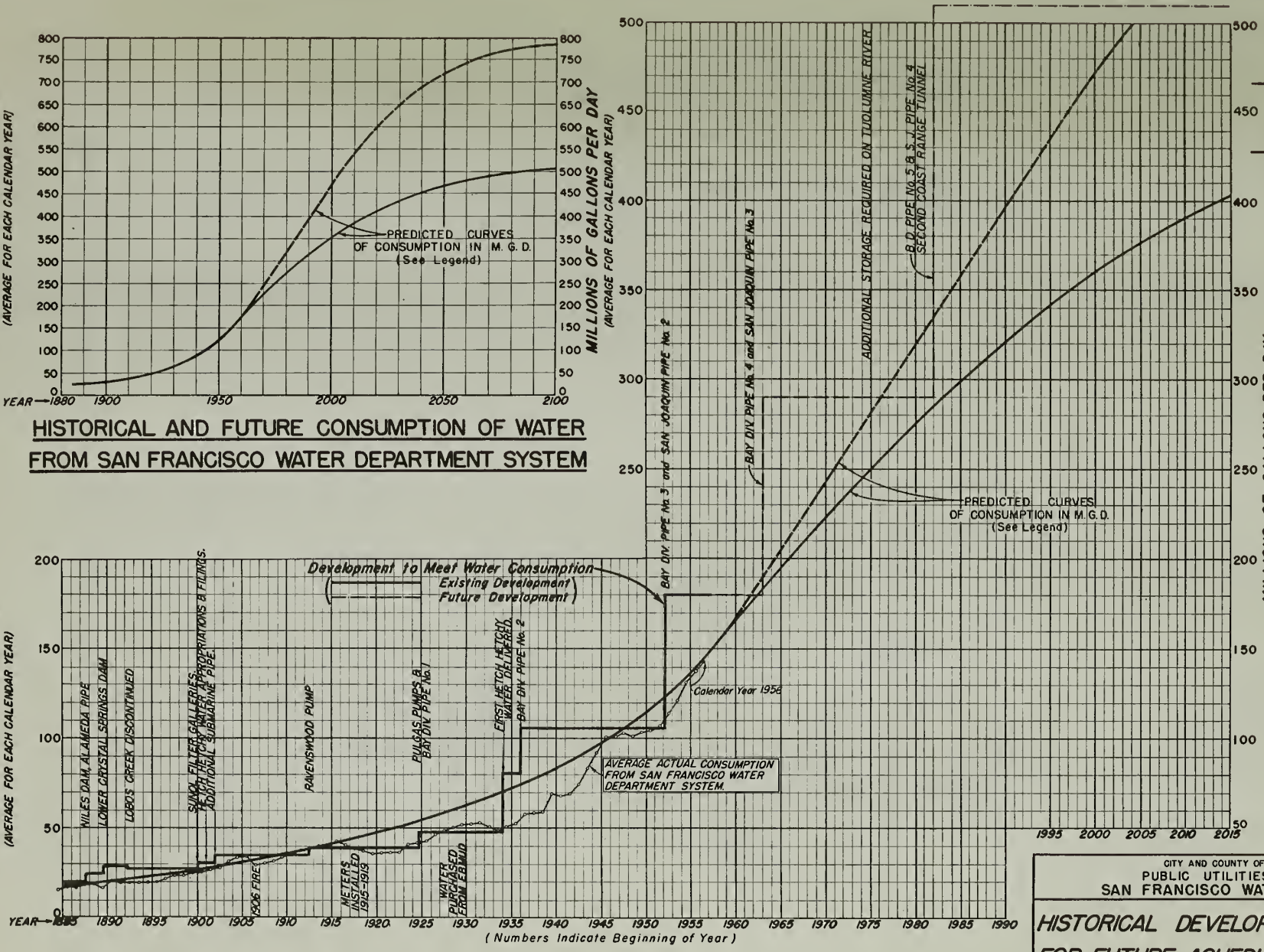
The Department's disaster program continues to function as a unit in the Disaster Council and Corps under the direction of A. G. Cook, Rear Admiral (Ret.). A revised instruction manual was nearing completion at the end of the fiscal year.

The Safety program initiated last fiscal year in the City Distribution Division has been carried on by regular meetings of supervisory personnel and key employees. Safety practices are reviewed in the field at the beginning of all major jobs. This proceedure has had a very stimulating effect.

The earthquake of March 22, 1957 was the strongest since that of April 18, 1906 but no serious damage resulted to Water Department's facilities. However there were a number of minor annoyances requiring attention and repairs which included about one hundred service pipe leaks, air valve leaks at certain points of low pressure and some leaks in old lines already considerably weakened by corrosion. The value of the Department's private telephone system and two way radio equipment was demonstrated when the public telephone lines became jambed with calls.

Our Capital Improvement Program is undergoing some delay due to lack of funds as all present financing is being done from revenues, except for $189,000 from the 1947 bonds which was used for the Hillsborough Tunnel. Revenues are not keeping pace with increase in costs and as a result the funds required for construction are diminishing. A further reduction is caused by the shrinkage in the value of the dollar. This results in reduced maintenance and deferment of the construction of facilities required for a first class system.

HISTORICAL AND FUTURE CONSUMPTION OF WATER FROM SAN FRANCISCO WATER DEPARTMENT SYSTEM



LEGEND

——— PREDICTED SUPPLEMENTAL CONSUMPTION WITHIN S.F.W.D. SERVICE AREA AS SHOWN ON JAN. 14-1957 S.F. WATER POLICY

— — PREDICTED SUPPLEMENTAL CONSUMPTION IN AREA SHOWN ON EXHIBITS PRESENTED IN MARCH 1955 & APRIL 1936.

NOTE:-

Aqueduct development to meet water consumption is for delivery to the peninsula reservoirs and consumers from main aqueduct.

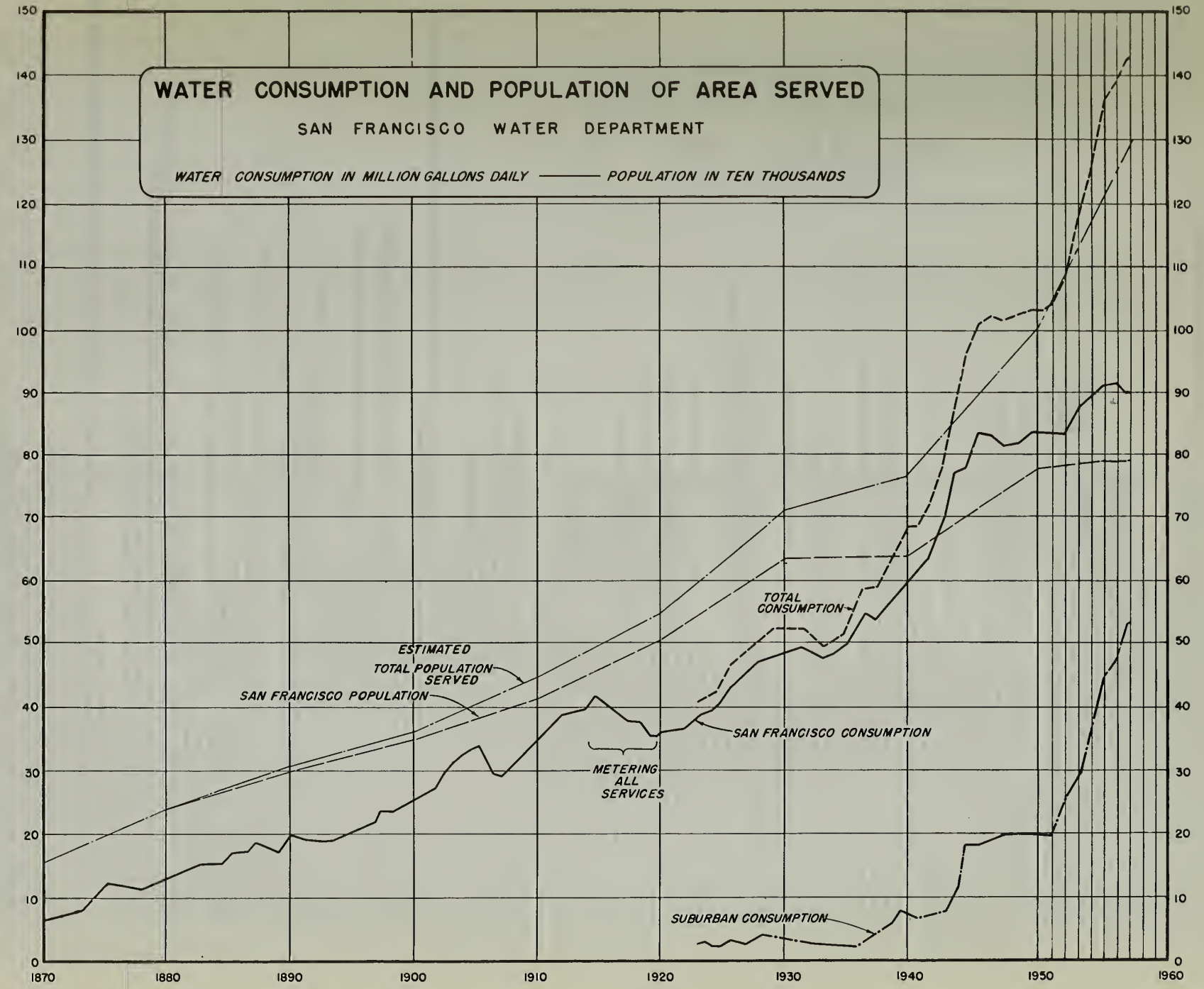
Does not include facilities for delivery and distribution therefrom.

Local production of record has varied from none to 94 M.G.D. (Average for one Year.) The average long range yield is about 50 M.G.D

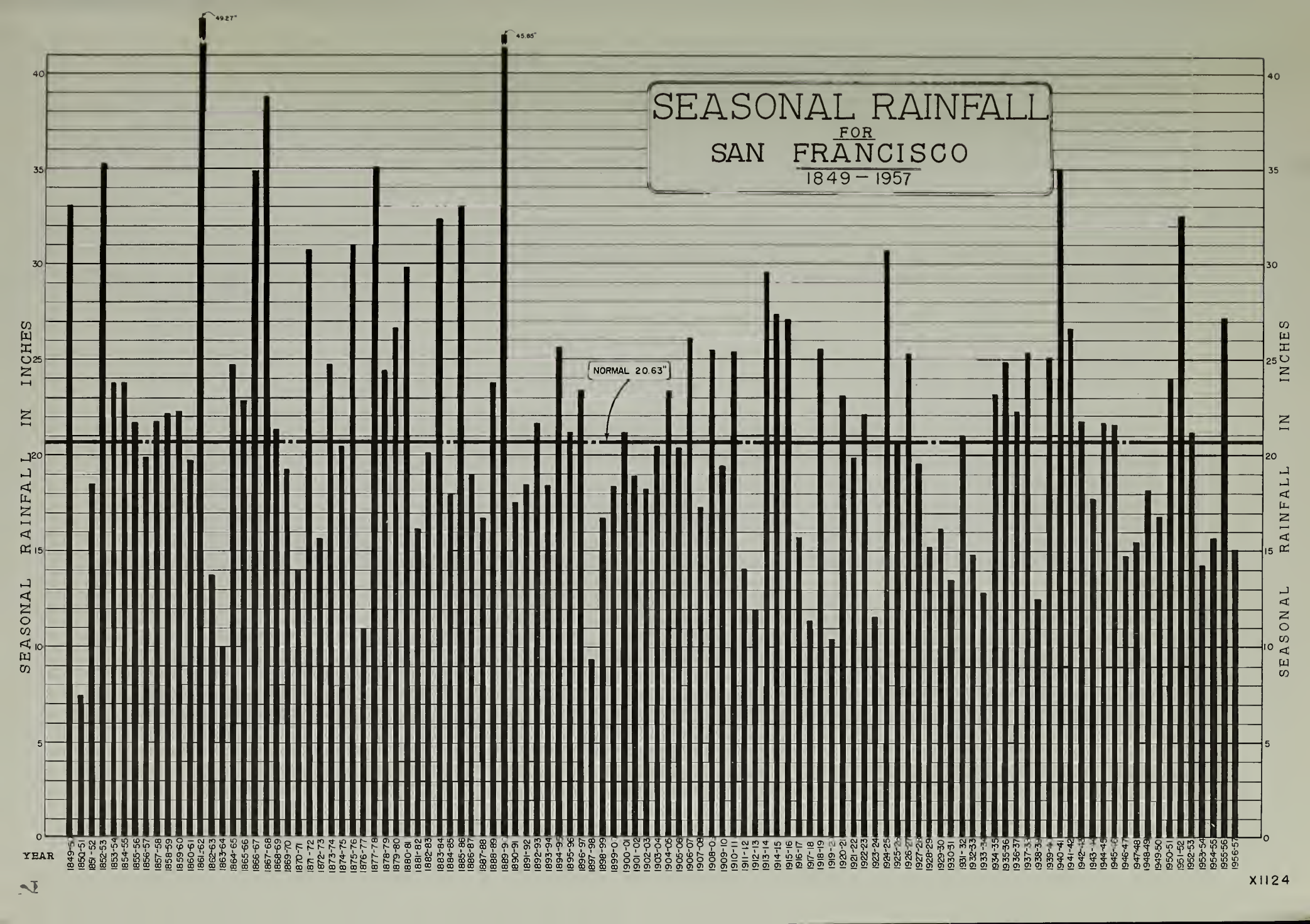
CITY AND COUNTY OF SAN FRANCISCO
PUBLIC UTILITIES COMMISSION
SAN FRANCISCO WATER DEPARTMENT

HISTORICAL DEVELOPMENT & PROGRAM FOR FUTURE AQUEDUCT CONSTRUCTION

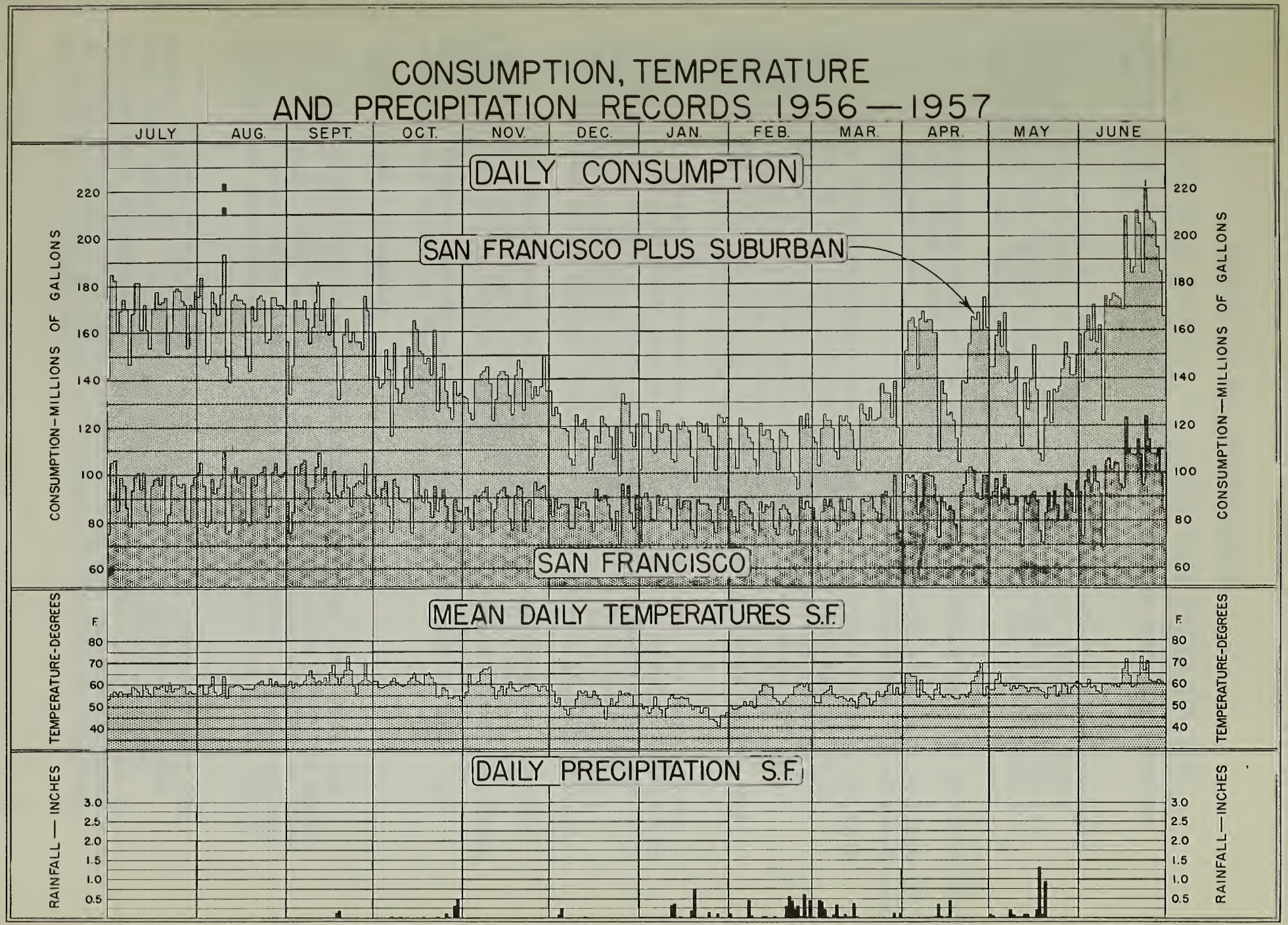
APPROVED	SCALE AS SHOWN	BY J.S.G.	DR. D.J.S.	DRAWING NO.	
APPROVED J.V. Turner GENERAL MANAGER AND CHIEF ENGINEER		TR D.J.S.	CR		X-1682D
	DATE NOV 8, 1956		REVISED OCT 17 1957		


WATER CONSUMPTION AND POPULATION OF AREA SERVED
SAN FRANCISCO WATER DEPARTMENT
WATER CONSUMPTION IN MILLION GALLONS DAILY ——— POPULATION IN TEN THOUSANDS
ESTIMATED TOTAL POPULATION SERVED
SAN FRANCISCO POPULATION
TOTAL CONSUMPTION
SAN FRANCISCO CONSUMPTION
METERING ALL SERVICES
SUBURBAN CONSUMPTION
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
1870
1880
1890
1900
1910
1920
1930
1940
1950
1960

X-1124


SEASONAL RAINFALL
FOR
SAN FRANCISCO
1849 – 1957
49.27"
45.85"
NORMAL 20.63"
SEASONAL RAINFALL IN INCHES
YEAR
0
5
10
15
20
25
30
35
40

X1124


CONSUMPTION, TEMPERATURE
AND PRECIPITATION RECORDS 1956—1957
JULY
AUG.
SEPT.
OCT.
NOV.
DEC.
JAN.
FEB.
MAR.
APR.
MAY
JUNE
DAILY CONSUMPTION
SAN FRANCISCO PLUS SUBURBAN
SAN FRANCISCO
CONSUMPTION-MILLIONS OF GALLONS
220
200
180
160
140
120
100
80
60
MEAN DAILY TEMPERATURES S.F.
TEMPERATURE-DEGREES F.
80
70
60
50
40
DAILY PRECIPITATION S.F.
RAINFALL — INCHES
3.0
2.5
2.0
1.5
1.0
0.5

PRODUCTION AND TRANSMISSION

Total water provided for consumption during the year was 52,186.6 million gallons, averaging 143.0 million gallons per day, which is 3.9 million gallons per day more than during the preceding year.

Deliveries to the San Francisco consumption area averaged 89.9 million gallons daily, with deliveries to suburban areas averaging 53.1 million gallons daily. (Some suburban deliveries in northern San Mateo County are included in the San Francisco consumption area figures.)

Deliveries from Hetch Hetchy were	36,600.2 million gallons.	70%
Draft from Local Production and storage was	15,586.4 million gallons.	30%
Total	52,186.6 million gallons.	100%

The total delivery from Hetch Hetchy since October 18,1934 now amounts to 427,122 million gallons or an average of 51.5 million gallons per day. During this same period of time a total of 777,311 million gallons have been released for consumption throughout the system. The difference of 350,189 million gallons, an average of 42.2 million gallons daily, was drawn from local production and storage.

All water delivered to San Francisco was, as heretofore, supplied entirely from San Andreas and Crystal Springs Reservoirs in San Mateo County. Those reservoirs were replenished from local run-off, by water drawn from Calaveras Reservoir in Alameda and Santa Clara Counties, from Sunol filter galleries and from the Hetch Hetchy system in the Sierra Nevada Mountains.

This department delivers water directly from the several transmission and supply lines to practically all cities and towns in San Mateo County; to Palo Alto, Woodside, Mountain View, Sunnyvale, Los Altos and Milpitas in Santa Clara County; to Hayward, Fremont and Newark in Alameda County and to some unincorporated areas in the three counties.

RAINFALL AND CATCHMENT:

The rainfall was considerably less than last year and was spread throughout the year, some rain falling in every month except August 1956, and this resulted in a lower production from the local watersheds. The precipitation, output, input, storage changes and productions are given in detail for the local reservoirs.

At Calaveras there was 16.94 inches of rainfall for the season, which is 71 percent of normal and is 41 percent less than last season. During the fiscal year 11,215.4 million gallons were withdrawn for consumption and the net decrease in storage was 7,425.3 million gallons, making a useable productivity of 3,790.1 million gallons, an average of 10.4 million gallons per day for the fiscal year.

Peninsula watersheds averaged some 79 percent of normal rainfall as indicated by the readings at the five rain gaging stations on the watersheds.

The rainfall at the San Andreas station was 27.44 inches which was 74 percent of normal; at Pilarcitos 38.78 inches, 86 percent of normal; at Lower Crystal Springs station 23.63 inches or 86 percent of normal; Upper Crystal Springs station 22.03 inches which was 79 percent of normal and at the Crystal Springs Cottage station 17.88 inches, equal to 67 percent of normal.

Total storage in the four Peninsula reservoirs was increased 463 million gallons during the year. The Bay Division Pipelines delivered 36,457.5 million gallons to Crystal Springs Reservoir and there were 40,695.6 million gallons withdrawn for consumption making a useable productivity of 4,701.1 million gallons, an average of 12.9 million gallons per day for the fiscal year.

The Sunol rainfall station recorded 13.98 inches for the year which was 68 percent of normal and 43 percent less than the preceding year. During this fiscal year some 1,905 million gallons, an average of 5.2 million gallons per day, were collected in the Sunol Filter Galleries as measured at the Brightside Weir.

Rainfall at the Department's Pleasanton Well Field gaging station was 14.10 inches for the year. This was 68 percent of normal and 33 percent less than the previous year.

STORAGE:

Calaveras storage on July 1, 1956 was 28,676 million gallons (gage 141' 1¼") or 91 percent of its capacity. Storage dropped to 17,310 million gallons (gage 112' 1½") on February 6, 1957. Withdrawal for consumption was stopped on the 26th of October and resumed on November 27, 1956 and again stopped for the season on February 24, 1957. Storage increased to 21,922 million gallons (gage 124' 9½") on June 3, 1957. Withdrawal for consumption was resumed on June 13, 1957. The water level gradually dropped until at the end of June it was at gage height 123' 2" with 21,299 million gallons stored. This was 67.5 percent of its capacity and 7,377 million gallons less than at the beginning of the fiscal year.

Crystal Springs storage at the beginning of the year was 17,249 million gallons (gage 110' 0") which was drawn down to 15,190 million gallons (gage 104' 7¾") on December 3, 1956, the low storage of the year. It was filled to 18,638 million gallons (gage 113' 4¼") on May 27, 1957, the maximum storage for the year. On June 30, 1957 there were 17,587 million gallons (gage 110' 10") of water in storage which was 92.5 percent of its capacity without flashboards and 338 million gallons more than at the beginning of the year.

San Andreas storage on July 1, 1956 was 5,007 million gallons (gage 78' 3¼"). This was increased to 5,885 million gallons (gage 84' ¾") on September 29, 1956, the high storage for the year. The lowest storage of 3,817 million gallons (gage 69' 9") was on February 5, 1957 and it dropped to 4,958 million gallons (gage 77' 11¼") on June 30, 1957. This was 80 percent of the reservoir's capacity and 49 million gallons less than at the beginning of this fiscal year.

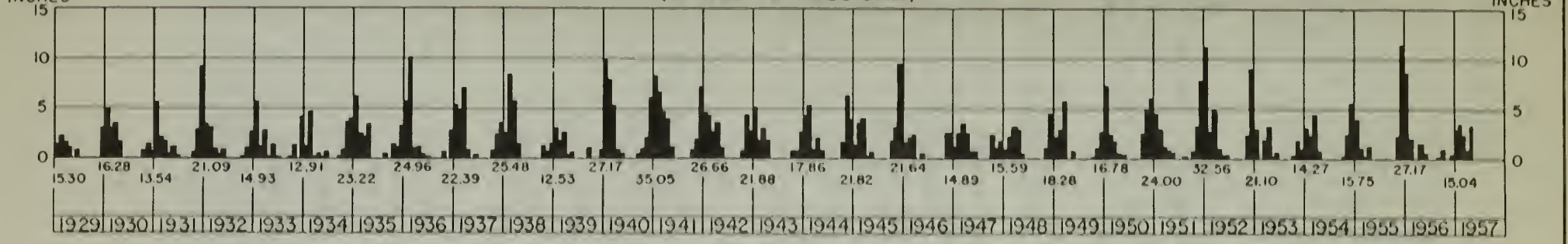
Pilarcitos contained 615.7 million gallons (gage 31' 8") of water at the beginning of the year. The storage varied between that quantity and a high of 626.3 million gallons (gage 32' ½") on October 11, 1956, after which withdrawals reduced the storage to the year's low of 444.8 million gallons (gage 25' 2¼") on February 13, 1957. Storage then increased to the year's high of 882.6 million gallons (gage 40' 3¾") on May 20, 1957. On June 30, 1957 there were 792.1 million gallons (gage 37' 6¼") in storage which is 84.3 percent of capacity, without flashboards, and 176.4 million gallons more than at the beginning of the year.

Lake Merced water has not been withdrawn for consumption since January 4, 1934 but it still remains an emergency source of water supply. On July 1, 1956 there were 2,492 million gallons of water in storage and on June 30, 1957 storage was reduced to 2,478 million gallons or 97 percent of capacity.

SAN FRANCISCO RAINFALL IN INCHES

U. S. WEATHER BUREAU

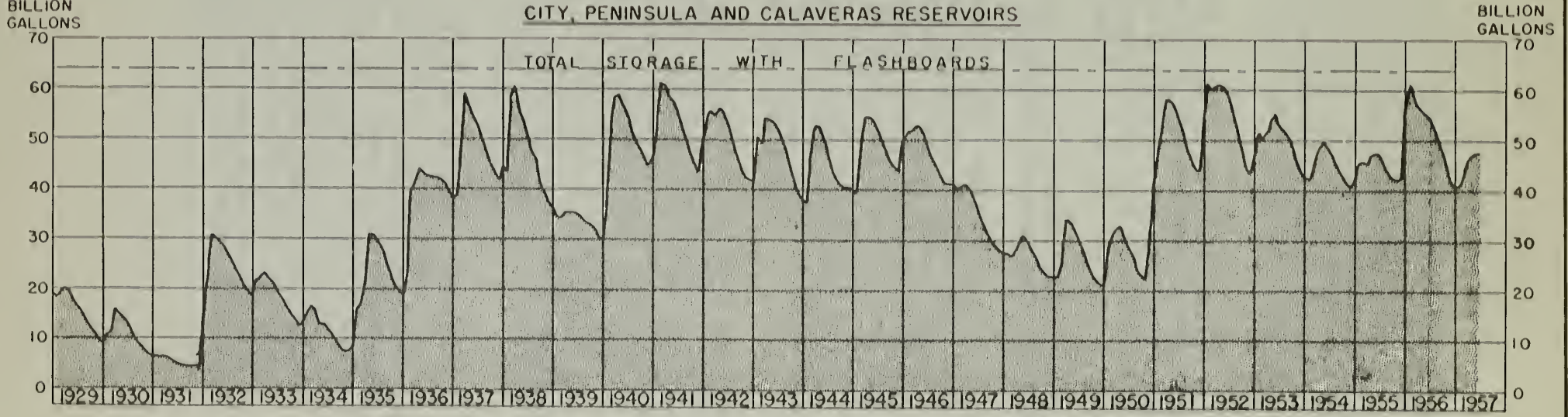
(NORMAL RAINFALL 20.63)



STORAGE IN BILLION GALLONS

SAN FRANCISCO WATER DEPARTMENT

CITY, PENINSULA AND CALAVERAS RESERVOIRS



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TRANSMISSION LINES:

The Calaveras Pipeline carried a total of 11,215.3 million gallons, an average of 30.7 million gallons per day, from the reservoir. There were 17.4 million gallons withdrawn for irrigation leaving a balance of 11,197.9 million gallons which was delivered to the Alameda Creek Siphon. This draft occurred from July 1 to October 26, 1956; from November 27, 1956 to February 24, 1957; on June 5, 1957 and from June 13, 1957 to the end of the fiscal year.

The Sunol pipeline delivered a total of 157.3 million gallons of water to the Sunol area from the Alameda Creek Siphon during the year. Of this total 134.1 million gallons were used for irrigation of the Water Department lands and 23.2 million gallons were used for the Sunol domestic supply.

No use was made of the Pleasanton pipeline other than to provide minor quantities to local consumers throughout the year.

The Sunol Aqueduct transported 1,905 million gallons of Sunol Filter Gallery water to Niles Reservoir during the year. This water was disposed of as follows: through the Niles-Irvington pipeline to Irvington Pumps, 132.9 million gallons; through the old 36-inch Alameda pipeline to consumers and the Bunting Gravel Pit for percolation into the Niles Cone, 623.5 million gallons; to local consumption, other than the above, 183.4 million gallons and the balance, 965.2 million gallons were spilled into Clark Ditch from the reservoir.

The Coast Range Tunnel carried 36,600.2 million gallons of Hetch Hetchy water to the Alameda Creek Siphon (100.3 million gallons per day average). A total of 11,215.4 million gallons was released from Calaveras Reservoir into Calaveras pipeline from which 17.4 million gallons were withdrawn for irrigation of the Department's lands, leaving 11,197.9 million gallons, which went into the Alameda Siphon. Deliveries therefrom to the Sunol Area totaled 218.8 million gallons and the remaining 47,579.3 million gallons (an average of 130.4 million gallons per day) was carried through the Irvington Tunnel.

Consumers withdrew 1,551.3 million gallons between Irvington Portal and the Irvington Meters, where there was registered a total flow in the three Bay Division pipelines of 46,028 million gallons. Withdrawals for Suburban consumption of 643.8 million gallons and input from Sunol of 132.9 million gallons reduces the quantity by 510.9 million gallons to 45,517.1 million gallons which were transported to the west side of the Bay. Additional withdrawals of 9,059.6 million gallons for suburban consumption on the west side of the Bay left a total of 36,457.5 million gallons which were delivered into Upper Crystal Springs Reservoir.

The two Crystal Springs pipelines carried an average of 72.8 million gallons per day from Lower Crystal Springs Reservoir. This was distributed as follows: to Sunset pipeline and thence to Lake Merced Pump Station, 23.9 million gallons per day; to University Mound Distribution System and to consumers between there and the Millbrae Headquarters, 27.9 million gallons per day and the remaining 21.0 million gallons daily to the distribution systems of the several Peninsula communities as far south as San Carlos.

San Andreas pipeline No. 2 carried an average of 32.3 million gallons daily from the reservoir to the Sunset and College Hill Distribution systems and to consumers along the pipeline.

The Baden-Merced pipeline carried an average of 5.8 million gallons per day, a total of 2,131.4 million gallons from the San Andreas 44-inch pipeline to the Merced-Manor District. The San Andreas 44-inch pipeline drew 2,235.8 million gallons from San Andreas Reservoir. The difference of 104.4 million gallons was used by consumers along the pipeline.

The Crystal Springs Aqueduct was in operation 42 weeks during the year carrying a total of 12,120.9 million gallons of water from the Crystal Springs Pumps to San Andreas Reservoir.

The Pilarcitos Aqueduct to San Andreas Reservoir was in service 44 weeks during the year and carried an average of 2.5 million gallons per day to San Andreas Reservoir.

PUMP STATIONS:

Irvington Pumps were operated on March 15, seventeen days in May and five days in June 1957, pumping a total of 132.9 million gallons of Sunol filter gallery water into the Bay Division Pipeline No. 2.

One or more of the Crystal Springs-San Andreas pumps operated forty two weeks during the year. A total of 12,120.9 million gallons was pumped to San Andreas Reservoir making a daily average of 33.2 million gallons. Crystal Springs booster pumps were not operated during the year.

Baden and Alemany pumps were not operated during the 1956-57 fiscal year. The motors were kept dry and turned over every month and the stations were maintained in a condition of readiness.

Pleasanton Pumps have not been operated for export of water since April 30, 1949. Well 0-1 was operated intermittently throughout the year to supply domestic needs of local consumers and six additional wells were operated in conjunction with agricultural leases, by Lessees for irrigation.

Lake Merced Pumps boosted an average of 23.9 million gallons of water per day from the Sunset Supply line pumping 16.0 million gallons daily to Sunset reservoir and 7.9 million gallons daily to Sutro reservoir.

MAINTENACE AND OPERATION:

The submarine pipes of the old Alameda System were sold during this fiscal year including those parts of the 16-inch lines under the Bay not previously removed; all of the two 22-inch pipes under the Bay; one of the 16-inch and both of the 22-inch pipelines under the Newark Slough. There remains one 16-inch submarine line under Newark Slough which is being used as a conduit for the Department's private telephone line.

There were ten leaks during the year in the old Alameda 36-inch pipeline between Burlingame and Belmont. Three of these were in locations where the pipeline had been centrilined in 1949 and seven in pipe which had not been centrilined. Failure of the pressure regulating valves at Burlingame increased the pressure in this line causing three of the seven leaks and a 20-inch x 28-inch blow-out in the same section.

Four leaks occurred in the Crystal Springs No. 1 (44-inch) pipeline. The Palo Alto, Crystal Springs No. 2, San Andreas No. 1 pipelines, the Pilarcitos Aqueduct 44-inch Siphon and Crystal Springs-San Andreas pump discharge line each developed one leak during the year.

Six leaks in the various pipelines at the San Francisco Airport were repaired, the worst occurring the day of the big earthquake.

The Crystal Springs-San Andreas Canal overflowed and washed out three bulkheads which supported the sidewalls of the Canal.

Repairs were made to the Pilarcitos and to the Stone Dam feeder flumes where damaged by falling trees and slides as a result of a heavy storm on May 18, 1957.

Efforts were made to discourage and kill off unsightly weeds, tule and reed growth in the shallow coves of Crystal Springs and San Andreas Lakes without much success.

An electric power unit was installed to operate the 42-inch valve at the Redwood City Valve House as a pilot or test installation. This unit was designed, constructed and installed by the Department's employees.

Two of the Bay Division Pipelines were shut down for relatively short periods during this year, No. 1 for centrilining on the West side of the Bay and No. 3 was relocated at Calabazas Creek in Santa Clara County. Advantage was taken of the shut-downs to make needed repairs to the No. 1 line and to provide a new 12-inch blowoff at the Creek and a gate valve bypass at Calaveras Road on pipeline No. 3.

On October 3, 1956 Bay Division Pipeline No. 3 was shut down between Stanford Tunnel and the Mountain View-Alviso Road and drained to Arastradero Road in Palo Alto, to complete the installation of a 12-inch valve for a service connection to the Purissima Hills Water District. Shut down was from 10:00 A.M. to 4:00 P.M.

A new service connection was made to the Alameda Creek siphon for the General Electric Atomic Engergy Plant at Vallecitos, Alameda County. The General Electric Company constructed a pumping station near the siphon to boost the water to their plant.

The 72 year old Crystal Springs 44-inch pipeline is now able to supply only about nine million gallons per day to University Mound Reservoir because of its bad conditon. Its original capacity was 24 million gallons per day.

All of the wood shelving and bins in the Millbrae Corporation Yard warehouse were replaced with metal shelving and bins, permitting better control of and easier access to the warehouse stock.

Storm damage to Upper Alameda Creek road was repaired, slides removed, bulkheads built and stream channelized.

The steel protective shelter for the gate valve and pipe at the outlet end of the eight foot tunnel at Calaveras was repaired, where damaged by falling rocks. The aerator,regulating valves and building windows were repaired; the vent pipes were extended. A new water supply tank was installed for the Calaveras cottages.

Considerable cleaning, scraping and painting was done to pipelines, the aerator, well covers, Calaveras outlet tower pipes, gratings, stairs, etc. and other of the Department's facilities in the Alameda Division.

WATER RIGHTS

In accordance with the Alameda County Water District agreement, the Department released water for replenishment of the underground supply of the Niles Cone and the total released during the year was 1,538 million gallons.

Billing on former so-called reduced rate and free water contracts continued at regular rates during the year. Those contracts dealt with water rights and right-of-ways. Suit was filed to nullify the contracts and those remaining in litigation were billed, during the year for $60,358.15 over and above the amount they would have been billed under the "contract" rates. The total amount billed was $727,764.04.

The Coastside County Water District's Application #16498 which was filed August 3, 1955 with the diversion to be in Section 10, below Stone Dam, came up for hearing before the State Water Rights Board on September 26, 1956. A representative of the Water Department was subpoenaed to explain the City's rights to Pilarcitos Creek water below the point of applicant's proposed diversion. The testimony given included a brief description and data on the past usage and the City's rights to the waters of Pilarcitos Creek, none of which information was on file with the State Water Rights Board or its predecessor.

In November 1956 the Water Department was notified by the State Water Rights Board that Pleasanton Township County Water District had filed Application No. 17002 on April 16, 1956 for a permit to appropriate unappropriated water, subject to vested rights, of the Arroyo del Valle tributary to Arroyo de la Laguna Creek in the amount of 60,000 acre feet per annum. Notification was also given of the filing of a like application No. 17003 by the Alameda County Water District for a similar amount of water. Both applications list the point of diversion to be "to storage on Sanitorium Reservoir."

A protest was filed on January 29, 1957 in the name of the City and County of San Francisco for the purpose of protecting vested rights in the waters of Livermore Valley and Arroyo de la Laguna and Alameda Creeks and to protect the Valle shaft of the Coast Range Tunnels which is within the area to be flooded by the proposed Sanitorium reservoir. A hearing will be held before the State Water Rights Board on their applications in the latter part of 1957.

The quantities of water due the District and the quantities released by the Water Department to the District for replenishing the underground waters for each of the past five years are, as follows:

Year	Due the District	Released to the District
1953	757,955,000	1,507,419,000
1954	501,614,000	1,251,654,000
1955	747,020,000	722,995,000
1956	222,850,000	989,290,000
1957	403,850,000	1,538,450,000
	2,633,289,000	6,009,808,000

The Sheriff of Alameda County continued to use the U.S. Navy's Camp Shoemaker as Santa Rita Rehabilitation Center during the fiscal year. Water supplied to this institution, as well as to the former Naval housing project, Komandorski Village and the Parks Air Force Base, was taken from the Navy's 4.105 and 100 acre tracts within the Pleasanton Water District. Camp Parks daily withdrawal of ground waters varied from a high of 3.5 million gallons to a low of 0.3 million gallons.

The high water table for this year in the Pleasanton Well Field, as measured in Well No. W103X, was 82.8 occurring in March 1957. Due to the continued pumping by Camp Parks, together with below normal rainfall, this water level is 7.5 feet lower than that of last year.

The Water Department again reimbursed the Pleasanton Water District for electric power charges for pumping "Community Wells" and paid power bills rendered to land owners, except as otherwise provided in the agreement.

The Town of Pleasanton continued, throughout the year, to obtain water from the two Department wells, located at Black Avenue and Santa Rita Road and paid all resulting electric power bills. The Department reimbursed the Town for these payments when the water table was below elevation 328 as stipulated in the agreement and credited the Town for the amount of the power bills when the water table was above this elevation, which was from February 24, 1957 to March 20, 1957. The Town was billed for all water used when the water table was above elevation 328 and for all water used in excess of 600,000 gallons per day when the water table was below elevation 328.

During the fiscal year two new agricultural leases were made for lands bordering Laguna and Alameda Creeks. Under the terms of these leases the Lessees are allowed irrigation water from these creeks and during the year 8.3 million gallons were used.

WATER QUALITY AND TREATMENT

GENERAL:

Normal water treatment practices and adequate precautions for safeguarding the San Francisco water supply were in force throughout the year with disinfection of all supplies being continuous.

In general, the water is free of tastes and odors and the quality is good for an unfiltered supply derived primarily from surface sources.

LABORATORY:

All analytical work in the fields of biology, bacteriology and chemistry, except the necessary field tests, was performed in our laboratory, located at Millbrae, which has been certified by the State Department of Public Health as an "Approved Water Laboratory for complete Chemical and Complete Bacteriological Analyses".

Following is a tabultation which summarizes the field and laboratory tests made during the year in connection with water treatment, sanitary control, and special investigations:

Bacteriological Examinations	8296
Routine Microscopical Examination of Algae	169
Electrical Conductivity Measurements	4601
Turbidity Measurements	3996
Partial Chemical Analyses	1322
Routine Fluoride Tests	2465
Color Measurements	913
Dissolved Oxygen Tests	602
Analyses to Determine Orgin of Leaks	347
Complaint Investigations	53
Chlorine Residual Tests	4220
Miscellaneous Field Tests	2028
Miscellaneous Laboratory Tests not otherwise included	400
Complete Mineral Analyses	2

CHLORINATION:

Disinfection of all supplies was adequate and continuous throughout the year, with no water being exposed to contamination between the time of last chlorination and the consumer's service. Ten of our chlorination stations operated continuously with the Calaveras, San Andreas #2, University Mound Inlet #1 and Sunset stations operating for 7.5 months, 9.4 months, 8.0 months and 6.1 months respectively.

A total of 1,144,850 pounds of chlorine was used during the year, a 5.08% increase as compared with last year's usage.

Fifty two and five tenths percent (52.5%) of the total was used at the Tesla Station, 15.4% in the Alameda Division, 28.4% in the Peninsula Division and 3.7% in the City Distribution Division. Chlorine dosages averaged 16.9 pounds per million gallons at the Tesla Station, 15.0 pounds per million gallons at the Calaveras Station, 5.8 pounds per million gallons at the Sunol Station, 8.4 pounds per million gallons at the Crystal Springs Station and 7.2 pounds per million gallons at the San Andreas Stations.

FLUORIDATION:

Fluoridation of all water supplied from the Peninsula reservoirs was continuous throughout the year except for minor shutdowns for maintenance, repair and adjustment.

Adequate safety features are provided to prevent any possible overdosage and operations have proved the controls to be very effective.

During the past fiscal year, a total of 443,305 pounds of sodium silicofluoride was used to treat 40,762 million gallons of water. The overall average dosage of 10.88 pounds per million gallons is equal to 0.80 parts per million of available fluoride. This amount, added to the 0.05 ppm of natural fluoride in the water supply, gave an average total fluoride of 0.85 parts per million.

CORROSION CONTROL:

A total of 1,392,200 pounds of lime was used at the Rock River plant in treating 35,513 million gallons of water, giving a dosage of 39.2 pounds per million gallons. The total lime used is an increase of 20.3% from the previous year.

ALGAE CONTROL:

A total of 114,000 pounds of copper sulfate was required during the year for the control of algae activity in our local storage and impounding reservoirs. This is a 192.3% increase as compared to last year's usage and is 43.5% above the past ten year average.

COAGULATION:

A total of 40,330 gallons of liquid alum was used during some 25 days in January through May, 1957 to reduce the turbidity of the water entering Lower Crystal Springs lake from San Andreas Creek.

On July 10, 1956 Laguna Honda Reservoir was treated with eight tons of filter alum to improve the appearance by reducing the turbidity. This reduced the surface turbidity from 190 ppm to 10 ppm which later increased to 20 ppm due to wind action.

WATER QUALITY:

The dissolved chemical content of the water served to consumers from the various sources of supply shows little variation when compared with the water served last year. Any change in chemical content of the water served from the Bay Crossing Lines is due primarily to differences in proportion of water entering from Calaveras and Hetch Hetchy and not from any changes in the chemical content of these sources.

TABLES AND CHARTS:

The tables and charts are self explanatory.

OPERATION OF CHLORINATION STATIONS

1956-1957

Location		Total Operating Time (months)	Chlorine Used (lbs.)	
Division	Station		Station Total	Division Total
Coast Range H.H.W.S.	Tesla	12.0	601,620	601,620
Alameda	Calaveras	7.5	164,850	
	Sunol Aqueduct	12.0	11,161	176,011
Peninsula	Crystal Springs #1	12.0	122,750	
	Crystal Springs #2	12.0	99,750	
	San Andres #1	12.0	7,361	
	San Andres #2	9.4*	68,992	
	San Andres #3	12.0	26,302	325,155
City Distribution	University Mound			
	Line #1	12.0	8,915	
	Line #2	12.0	15,680	
	Inlet #1	8.0	4,813	
	College Hill	12.0	7,803	
	Lombard	12.0	1,060	
	Sunset	6.1	3,793	42,064
			Total	1,144,850

*Subsequent to 4-11-57, S.A. #3 Station chlorinating the supply to the S.A. 54" Line (S.A. #2).

1956-1957

OPERATION OF FLUORIDATION STATIONS

STATION	Months Operated	Fluoride Used (lbs.)	Flow (m.g.)	Fluoride Added		Total Fluoride F ppm
				Na_2SiF_6 lbs./m.g.	F ppm	
C.S. #1	12.0*	150,349	14,540.3	10.34	0.76	0.81
C.S. #2	12.0*	157,280	12,033.3	13.07	0.95	1.00
S.A. #1	12.0*	25,301	2,428.1	10.42	0.76	0.81
S.A. #2	12.0*	110,375	11,760.3	9.39	0.72	0.77
	Total	443,305	40,762.0	10.88	0.80	0.85

*All fluoride stations shut down for varying short periods of time for maintenance, repair and adjustment.

OPERATION OF LIME TREATMENT STATION

STATION	Months Operated	Lime Used (lbs.)	Flow (m.g.)	Lime Added	
				lbs./m.g.	ppm
Rock River (H.H.W.S.)	12.0	1,392,200	35,512.6	39.20	4.70

OPERATION OF SAN ANDRES CREEK ALUM TREATMENT STATION

STATION	Days Operated	Alum Used (Gallons)	Remarks
San Andres Creek	25	40,330	Operated intermittently as needed during the months of January thru May.

1956-1957

COPPER SULFATE

RESERVOIR	DATE	AMOUNT $CuSo_4$ (lbs.)	STORAGE *(mg)	REASON FOR TREATMENT
Calaveras	8-3-56	30,800	26,777	Aphanizomenon
"	4-26-57	24,000	21,441	Staurastrum
J.C.S.	1-10-57	8,400	6,076	Aphanizomenon
"	6-27-57	9,600	7,031	Staurastrum
L.C.S.	1-25-57	10,700	9,778	Aphanizomenon
"	6-7-57	13,800	11,078	Staurastrum
Pilarcitos	6-24-57	1,500	791	Staurastrum
San Andres	10-29-56	8,300	5,465	Anabaena
"	4-17-57	6,900	4,235	Aphanizomenon
	Total	114,000	92.67 Billion Gallons	

114,000
39,000
75,000

$\frac{75,000 \times 100}{39,000}$ = 192.3 Percent increase over the previous year.

114,000
79,450
34,550

$\frac{34,550 \times 100}{79,450}$ = 43.5 Percent above the previous 10 year average.

*Storage at time of treatment.

WATER QUALITY

1956-1957 Data

CRYSTAL SPRINGS LINES

Hardness	Max. 57	Min. 40	Av. 50.4 ppm (2.95 gpg) (grains per gal.)
Chloride	Max. 10	Min. 6	Av. 8.0 ppm
Alkalinity	Max. 45	Min. 30	Av. 40.2 ppm
pH	Max. 7.6	Min. 7.0	Av. 7.33
Conductivity	Max. 132	Min. 106	Av. 124.3 Micromhos
Turbidity	Max. 10.5	Min. 0.5	Av. 1.06 ppm
Temperature	Max. 67	Min. 48	Av. 58.9° F.
Dissolved Oxygen	Max. 11.4	Min. 8.2	Av. 9.60 ppm (95% Saturation)

SAN ANDRES LINES

Hardness	Max. 69	Min. 51	Av. 56.1 ppm (3.28 gpg)
Chloride	Max. 13	Min. 7.5	Av. 10.4 ppm
Alkalinity	Max. 52	Min. 41	Av. 44.4 ppm
pH	Max. 7.7	Min. 7.2	Av. 7.39
Conductivity	Max. 149	Min. 137	Av. 141.7 Micromhos
Turbidity	Max. 5.0	Min. 0.5	Av. 1.41 ppm
Temperature	Max. 66	Min. 46	Av. 58.0 °F.
Dissolved Oxygen	Max. 11.6	Min. 7.4	Av. 9.99 ppm (97% Saturation)

BAY CROSSING LINES

Hardness	Max. 63	Min. 14	Av. 36.5 ppm (2.13 gpg)
Chloride	Max. 8	Min. 2	Av. 4.9 ppm
Alkalinity	Max. 53	Min. 9	Av. 30.7 ppm
pH	Max. 9.3	Min. 7.5	Av. 8.58
Conductivity	Max. 147	Min. 40	Av. 92.3 Micromhos
Turbidity	Max. 3.0	Min. 0.5	Av. 1.01 ppm
Temperature	Max. 62	Min. 46	Av. 55.4°F.
Dissolved Oxygen	Max. 11.9	Min. 5.0	Av. 9.84 ppm (93% Saturation)

MONTHLY SUMMARIES OF BACTERIOLOGICAL ANALYSES

SAMPLES COLLECTED FROM THE SAN FRANCISCO DISTRIBUTION SYSTEM

IN ACCORDANCE WITH CERTIFICATION REQUIREMENTS

1956-1957

Month	Coliform Tests					
	Samples Positive (3 or more tubes)			10 ml Tubes or Portions		
	Number of Samples	Number Positive	Per Cent Positive	Number of Tubes	Tubes Positive	Per Cent Positive
1956						
July	401	7	1.7	2005	42	2.1
August	405	9	2.2	2025	42	2.1
September	368	6	1.6	1840	43	2.3
October	461	1	0.2	2305	15	0.6
November	410	0	0	2050	5	0.2
December	415	0	0	2030	4	0.2
1957						
January	414	0	0	2070	10	0.5
February	363	1	0.3	1815	9	0.5
March	377	0	0	1885	12	0.6
April	410	0	0	2050	11	0.5
May	414	16	3.9	2070	123	5.9
June	372	14	3.8	1860	102	5.5

BACTERIOLOGICAL ANALYSES

ANNUAL SUMMARY OF RESULTS

RAW WATERS - SOURCES AND RESERVOIRS*

1956-1957

Origin of Sample	Agar Count No. per ml			Coliform Group 10 ml Portions			Samples		
	Min.	Max.	Median	No. Exam.	No. Pos.	% Pos. Yr.	No. Exam.	No. Pos.	% Pos. Yr.
Moccasin Reservoir	1	5000	75	235	86	36.6	47	16	34.0
Tesla Portal	1	6	1	200	0	0	40	0	0
Calaveras Reservoir	1	800	5	415	59	14.2	83	7	8.4
Sunol Filters	1	100	1	260	35	13.5	52	3	5.8
Pleas. Well Field	1	154	1	255	100	39.2	51	18	35.3
Pleasanton Town Well	1	25	1	450	15	3.3	90	1	1.1
Upper C.S. Res.	1	2000	2	200	54	27.0	40	10	25.0
Lower C.S. Res.	1	900	5	520	219	42.1	104	39	37.5
San Andres Res.	1	100	2	520	277	53.3	104	54	51.9
Pilarcitos Res.	1	80	1	255	74	29.0	51	12	23.5
Stone Dam Res.	1	320	1	255	127	49.8	51	23	45.1
Lombard Reservoir	1	26	1	520	197	37.9	104	39	37.5
Univ. Md. Res. #1	1	400	1	515	138	26.8	103	23	22.3
Univ. Md. Res. #2	1	4	1.	520	12	2.3	104	2	1.9
College Hill Res.	1	82	3	515	218	42.3	103	40	38.8
Sunset Reservoir	1	10	1	525	29	5.5	105	4	3.8
Francisco Reservoir	1	25	1	520	12	2.3	104	0	0
				M.P.N.					
				Min.	Max.	Median			
Lake Honda Res.**	1	30	2	0	8.8	2.2	24	4	-
Lake Merced N.	3	2500	26	0	2400	62	25	-	-
Lake Merced S.***	1	500	7	0	2400	23	37	-	-
Lake Merced Pump Sta.	1	3000	140	6	24000	240	36	-	-
Laguna Creek	15	2500	140	38	24000	2400	8	8	100
Alameda Creek	1	2400	56	0	24000	240	52	46	88.5
San Antonio Creek	4	2000	120	38	24000	2400	15	15	100

* Includes all distribution reservoirs with chlorination facilities operating at the outlet.
** Standby purpose only.
*** Emergency standby source.

M.P.N. Most probable number per 100 ml.

BACTERIOLOGICAL ANALYSES
ANNUAL SUMMARY OF RESULTS
TREATED WATERS
1956-1957

Origin of Sample	Agar Count No. per ml.			Coliform Group 10 ml Portions			Samples		
	Min.	Max.	Median	No. Exam.	No. Pos.	% Pos. Yr.	No. Exam.	No. Pos. *	% Pos. Yr.
Alameda East Portal	1	16	1	260	0	0	52	0	0
Calaveras Pipe Line	1	50	1	160	1	0.6	32	0	0
Sunol Aqueduct	1	5	1	260	0	0	52	0	0
Irvington Pump Station	1	3	1	20	0	0	4	0	0
Sunol Town Supply	1	70	1	520	1	0.2	104	0	0
Bay Crossing Line #1	1	10	1	370	0	0	74	0	0
Bay Crossing Line #2	1	7	1	520	0	0	104	0	0
Bay Crossing Line #3	1	10	1	255	0	0	51	0	0
Irvington Venturi Meter	1	185	1	255	2	0.8	51	0	0
Palo Alto Pipe Line	1	92	1	780	0	0	156	0	0
Alameda Line, Belmont	1	4	1	520	13	2.5	104	3	2.9
San Francisco Airport	1	320	1	665	47	7.1	133	9	6.8
Crystal Springs Line #1	1	500	1	1555	16	1.0	311	1	0.3
Crystal Springs Line #2	1	10	1	1555	14	0.9	311	2	0.6
San Andres Line #1	1	13	1	1555	0	0	311	0	0
San Andres Line #2	1	12	1	1555	0	0	311	0	0
San Andres Line #3	1	2250	1	515	1	0.2	103	0	0
Univ. Md. Inlet #1	1	24	1	525	16	3.0	105	4	3.8
Univ. Md. Inlet #2	1	3	1	525	0	0	105	0	0
Univ. Md. Outlet #1	1	3	1	520	2	0.4	104	0	0
Univ. Md. Outlet #2	1	2	1	510	6	1.2	102	1	1.0
Univ. Md. System #1	1	2	1	520	0	0	104	0	0
Univ. Md. System #2	1	5	1	520	5	1.0	104	1	1.0
Univ. Md. System #3	1	10	1	520	0	0	104	0	0
Univ. Md. System #4	1	10	1	520	2	0.4	104	0	0
Univ. Md. System #5	1	3	1	520	10	1.9	104	2	1.9
Univ. Md. System #6	1	6	1	520	15	2.9	104	3	2.9
College Hill Trans. System	1	6	1	520	0	0	104	0	0
College Hill Outlet	1	8	1	520	11	2.1	104	1	1.0
College Hill System #1	1	70	1	520	11	2.1	104	1	1.0
College Hill System #2	1	4	1	520	10	1.9	104	1	1.0
Sunset Supply Line	1	3	1	520	0	0	104	0	0
Sunset Trans-System	1	80	1	520	0	0	104	0	0
Sunset Inlet	1	12	1	520	6	1.2	104	1	1.0
Sunset Outlet	1	3	1	525	3	0.6	105	1	0.9
Sunset System #1	1	200	1	520	10	1.9	104	1	1.0
Sunset System #2	1	6	1	520	7	1.3	104	0	0
Forest Hill System	1	213	1	520	7	1.3	104	0	0
Potrero Heights System	1	20	1	520	36	6.9	104	4	3.8
Lombard System	1	4	1	520	11	2.1	104	0	0
Merced Manor Reservoir	1	4	1	520	23	4.4	104	3	2.9
Merced Manor System	1	98	1	520	14	2.7	104	2	1.9
Stanford Heights Reservoir	1	6	1	520	56	10.8	104	7	6.7
Stanford Hts. System #1	1	50	1	520	13	2.5	104	2	1.9
Stanford Hts. System #2	1	23	1	520	6	1.2	104	1	1.0
Sutro Reservoir	1	5	1	520	29	5.6	104	5	4.8
Sutro System #1	1	7	1	410	3	0.7	82	0	0
Sutro System #2	1	41	1	410	6	1.5	82	1	1.2
Wilde Avenue System	1	168	1	520	9	1.7	104	0	0
Summit Reservoir	1	4	1	520	61	11.7	104	10	9.6

*Number of samples having 3 or more tubes positive.

SAN FRANCISCO WATER DEPARTMENT

MINERAL ANALYSES

(results expressed in parts per million, except pH, conductivity)

SOURCE	CRYSTAL SPRINGS LINES	SAN ANDRES LINES
Date Sampled	June 12, 1957	June 12, 1957
Calcium (Ca)	11.1	13.8
Magnesium (Mg)	3.0	4.6
Sodium (Na)	5.5 (5.2)	8.0 (7.6)
Potassium (K)	0.3 ± 0.2	0.6 ± 0.2
Iron (total) (Fe^{+++})	0.04	0.02
Aluminum (total) (Al)	0.03	0.02
Manganese (Mn^{++++})	0.004	0.004
Bicarbonate (HCO_3)	38.5	52.5
" " (Calculated)	39.6	55.3
Carbonate (CO_3)	none	none
Chloride (Cl)	7.6	10.1
Sulphate (SO_4)	6.6	8.7
Fluoride (F)	0.9 (0.02)	1.0 (0.05)
Nitrate (NO_3)	0.17	0.08
Phosphate (PO_4)	0.01	0.01
Boron (B)	0.03	0.04
Silica (SiO_2)	5.4 (4.9)	4.8 (4.3)
Ammonia (NH_3)	0.01	0.01
Carbonaceous Matter	1.1	1.4
Dissolved Oxygen (O_2)	8.9	9.8
Hardness as $CaCO_3$	40.2	54.2
" " " (Calculated)	40.3	53.8
Alkalinity as $CaCO_3$	31.5	43.0
" " " (Calculated)	32.4	45.5
Carbonate Equivalent	18.9	25.8
" " (Calculated)	19.5	27.3
Total Solids (Residue at 105°C)	64.0	81.4
" " (Calculated)	61.0	79.1
Conductivity in μmhos 25°C	96	139
pH	7.3	7.6

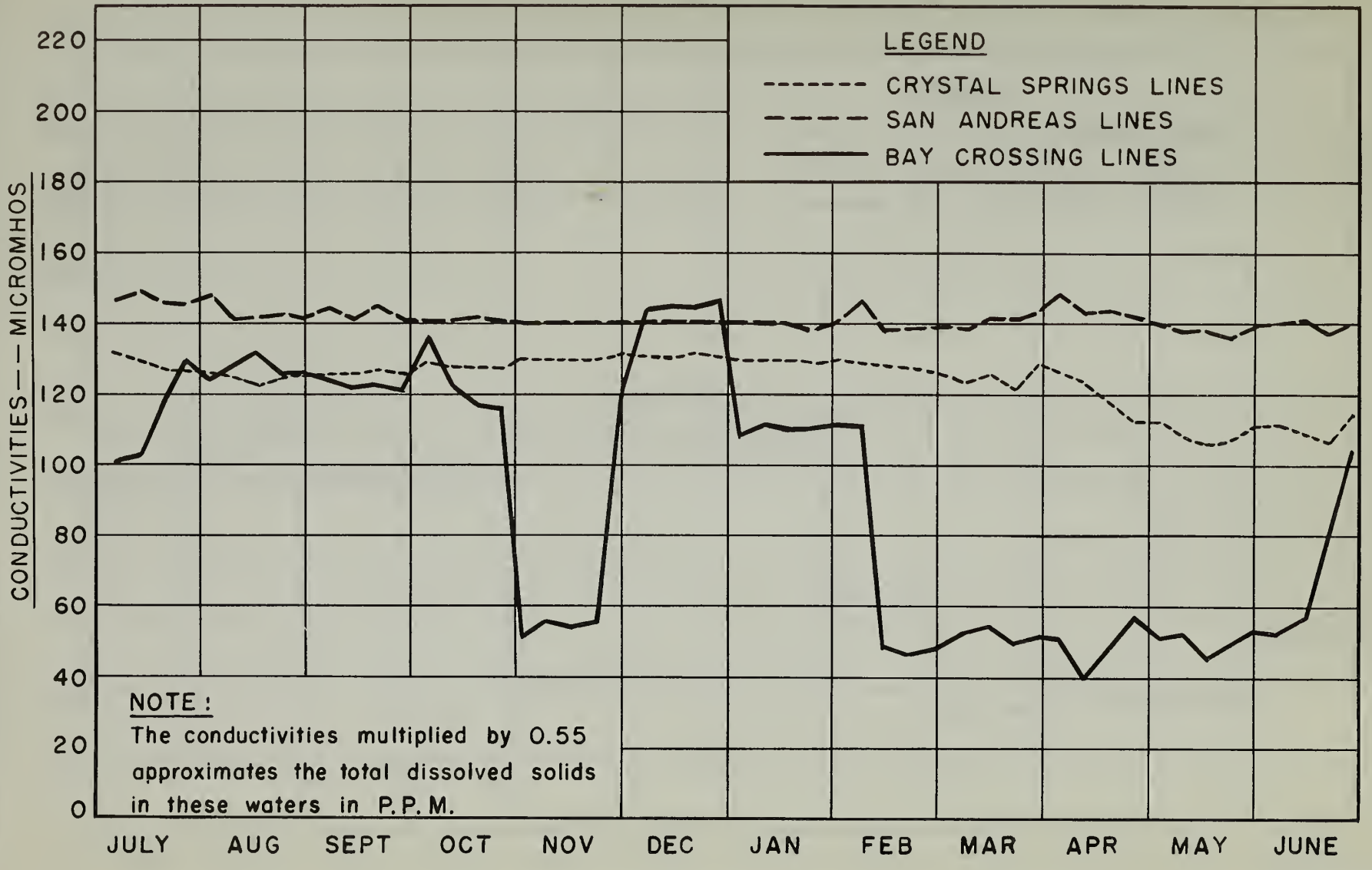
Column 1 supplies downtown, commercial, waterfront areas of San Francisco and Peninsula communities as far south as San Carlos.

Column 2 supplies residential areas of San Francisco.

Numerals in parenthesis are values before fluoridation.

ELECTRICAL CONDUCTIVITIES OF WATER DELIVERED TO CONSUMERS

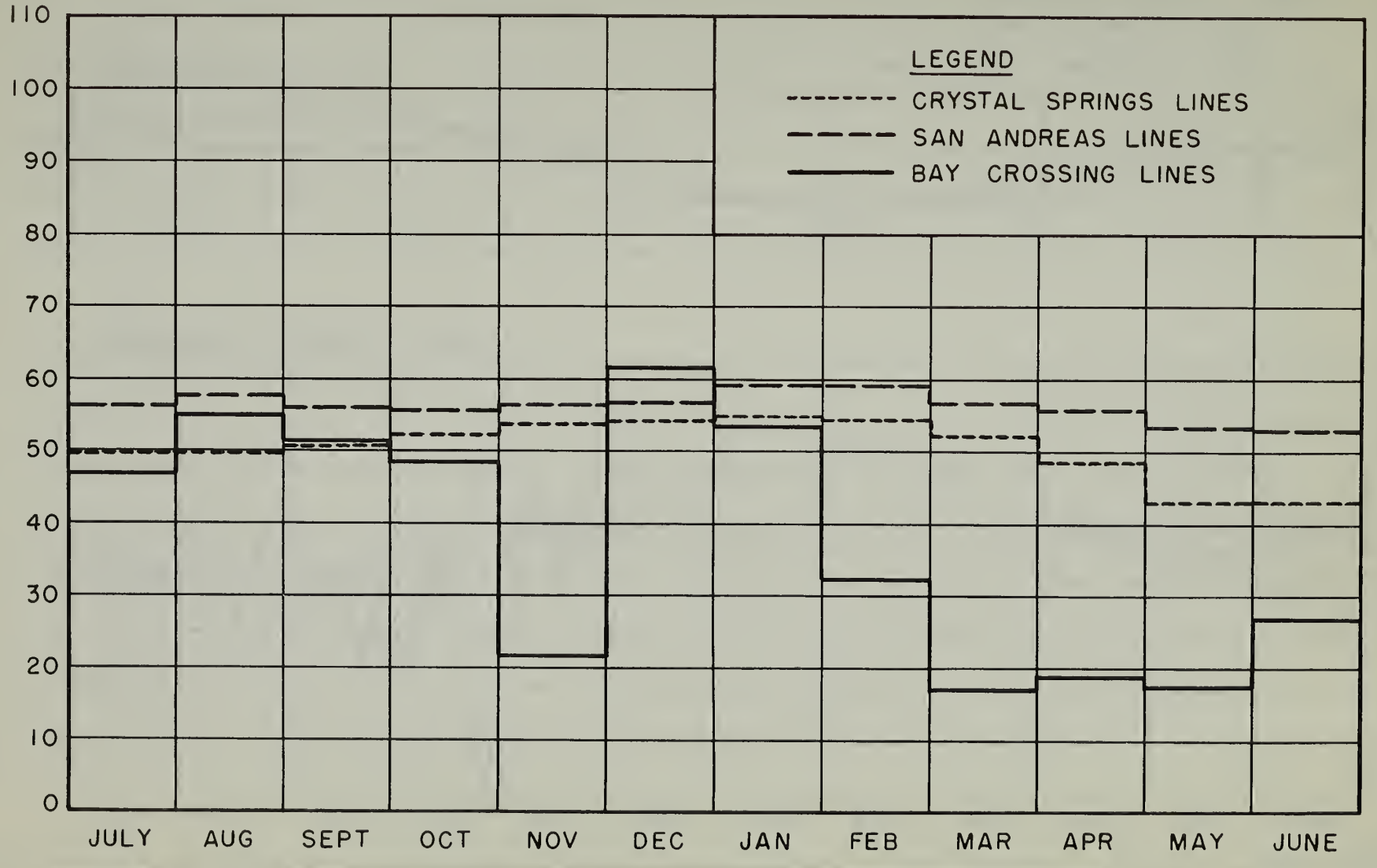
1956–1957



H.K.H. 7-57

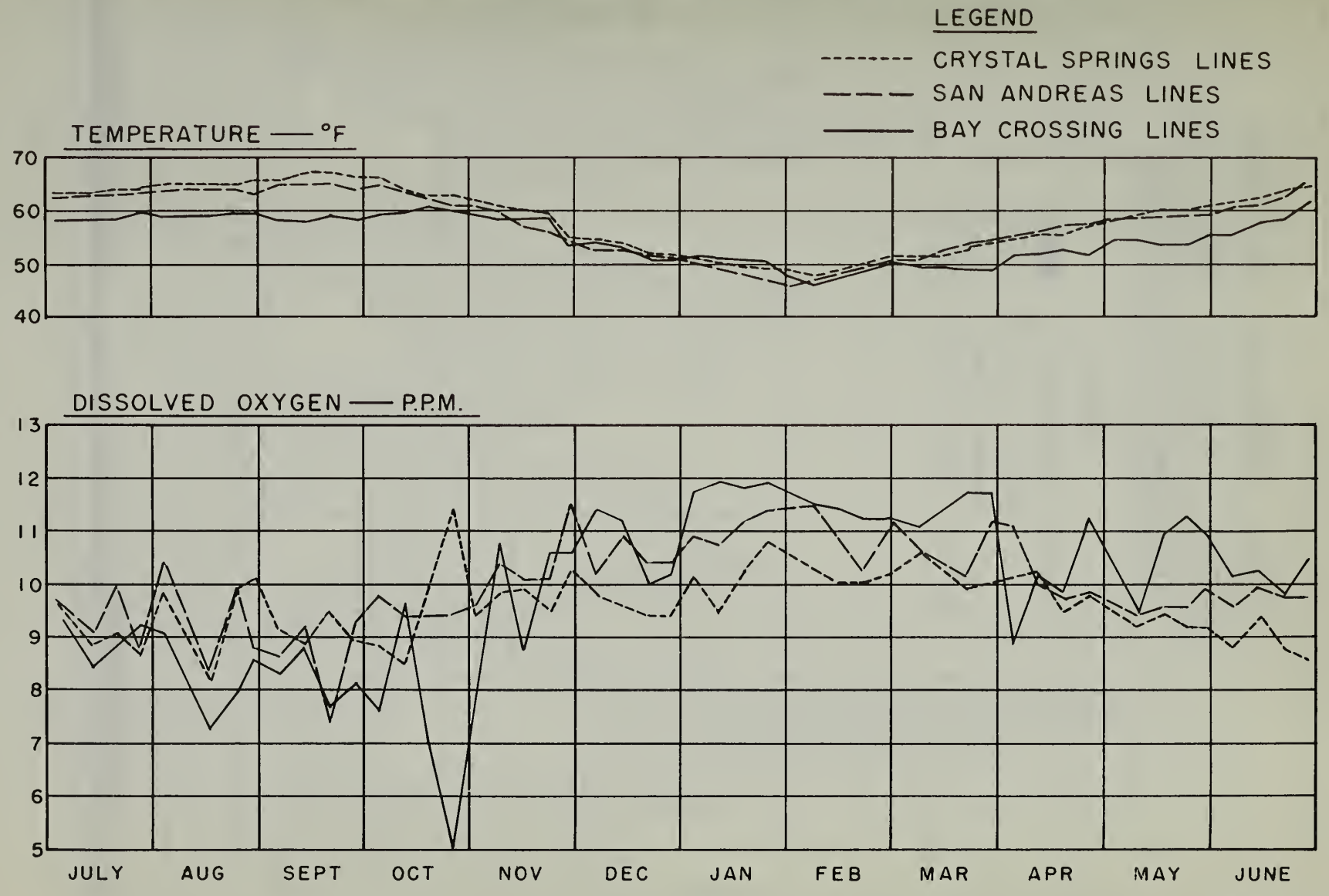
HARDNESS OF WATER
DELIVERED TO CONSUMERS 1956—1957

(MONTHLY AVERAGES—PARTS PER MILLION AS $CaCO_3$)



H.K.H.- 7-57

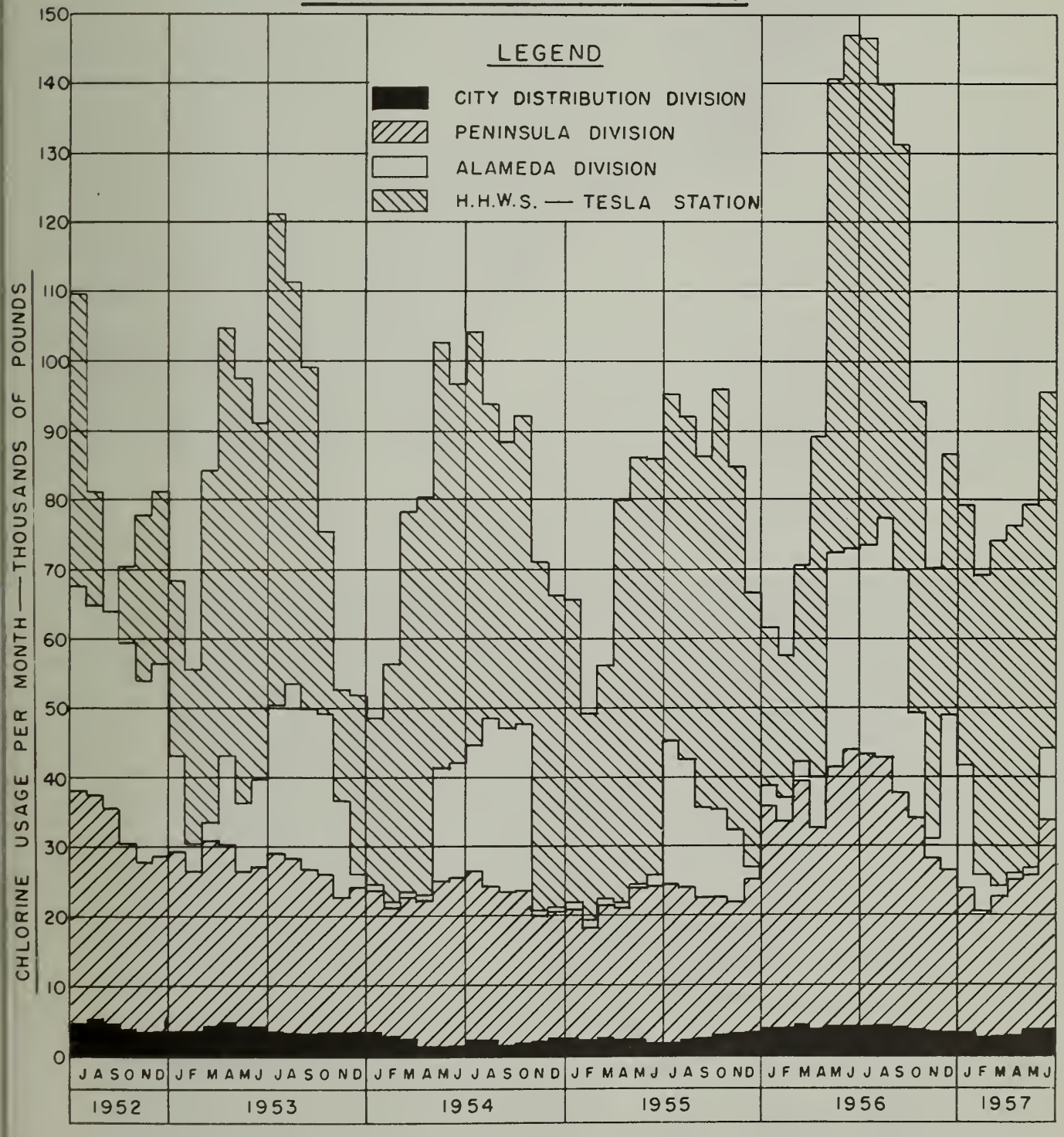
TEMPERATURE AND DISSOLVED OXYGEN OF WATER DELIVERED TO CONSUMERS 1956 — 1957



H.K.H. 7—57

MONTHLY CHLORINE USAGE IN WATER SUPPLY SYSTEM

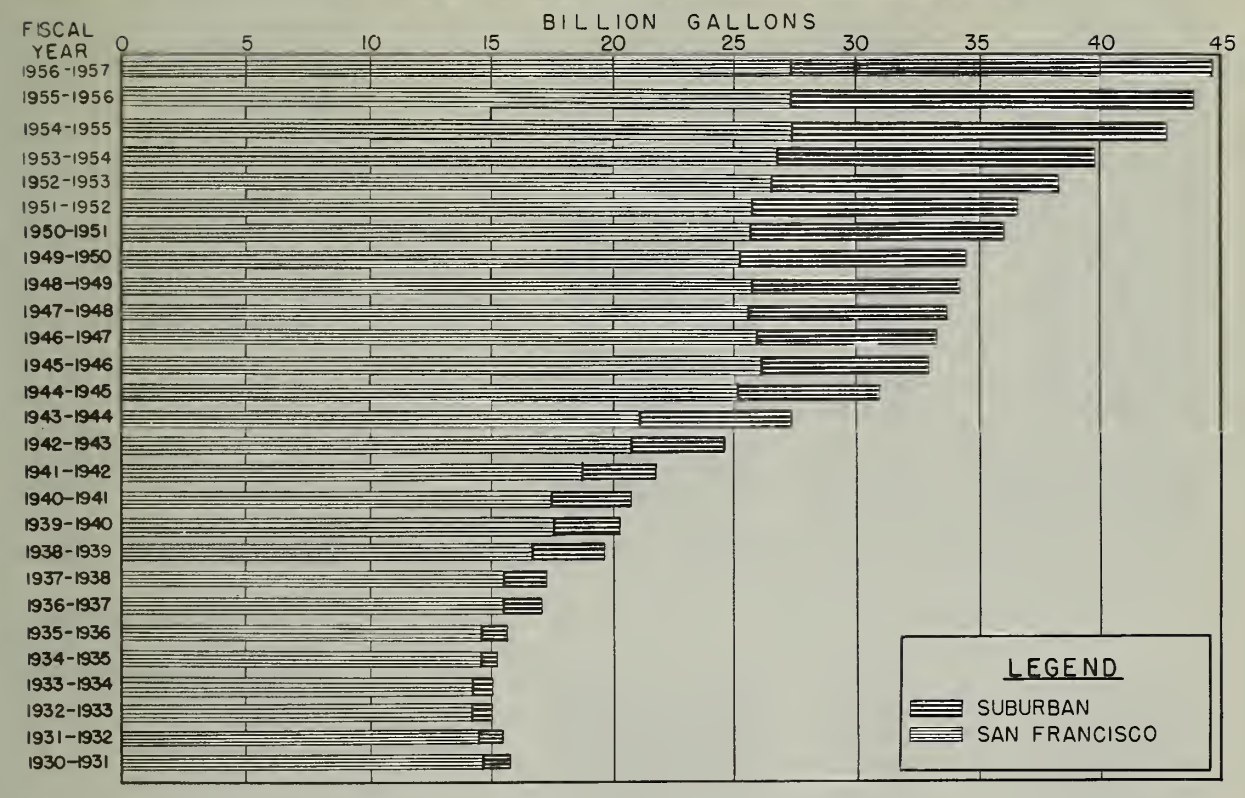
(PAST FIVE YEAR COMPARISON)



H.K.H 7-57

SAN FRANCISCO WATER DEPARTMENT

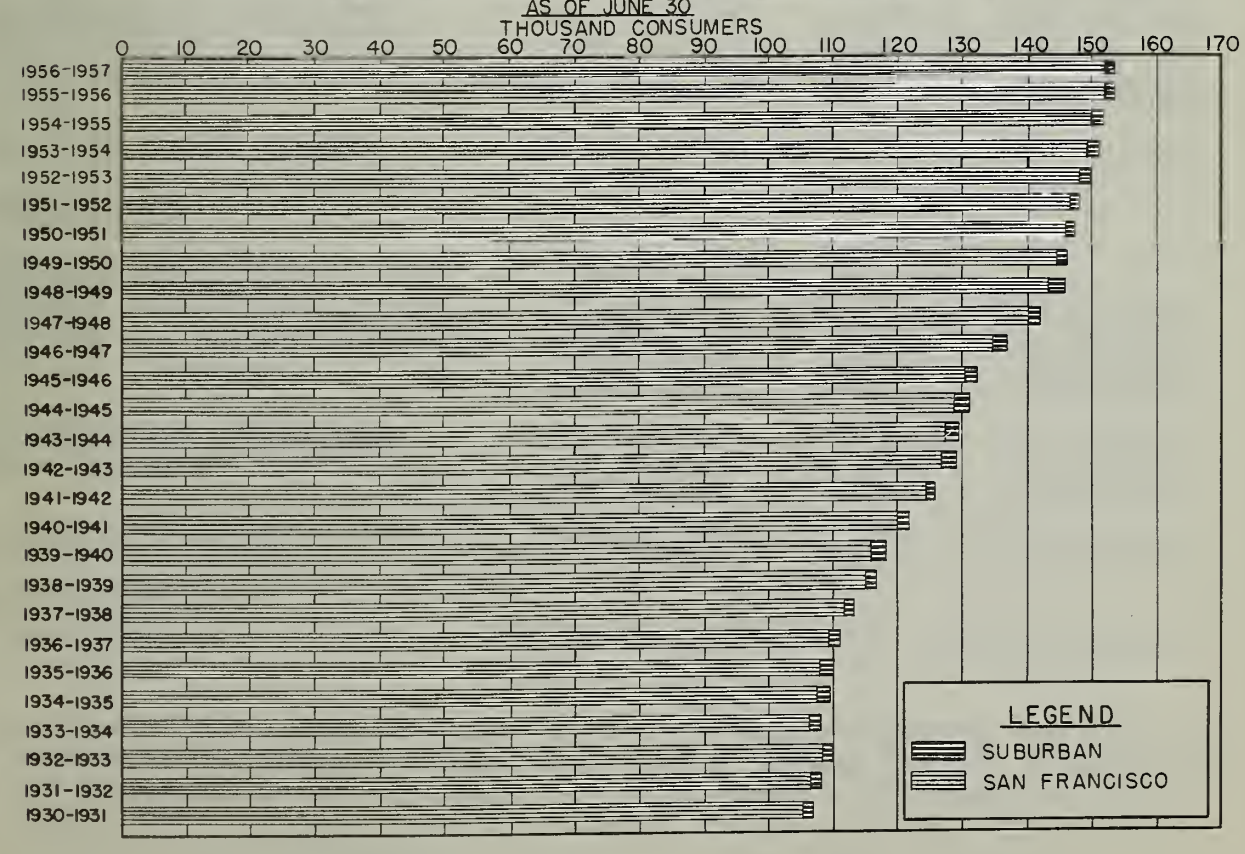
WATER DELIVERED AT CONSUMERS METERS



SAN FRANCISCO WATER DEPARTMENT

NUMBER OF ACTIVE CUSTOMER ACCOUNTS

AS OF JUNE 30



X-1124

WATER SOLD IN SUBURBAN AREA
FISCAL YEAR 1956 - 1957

	CUBIC FEET TOTAL FOR YEAR	M.G.D.	CHARGE TOTAL FOR YEAR
SAN MATEO COUNTY			
MUNICIPAL UTILITIES			
City of Redwood City	238,471,200	4.89	$ 393,961.02
City of Burlingame	130,983,700	2.68	222,881.56
Town of Hillsborough	81,030,800	1.66	134,999.08
Belmont County Water Dist.	67,534,400	1.39	111,742.52
City of Millbrae	67,200,400	1.38	119,159.28
Ravenswood Water District	64,611,500	1.32	107,373.17
No. Coast Co. Water Dist.	47,678,100	0.98	79,209.24
Menlo Park Mun. Water Dist.	46,159,200	0.95	77,460.92
City of San Bruno	31,897,600	0.65	58,319.60
Airport	27,964,000	0.57	53,011.14
Other Municipal Utilities	33,295,300	0.68	65,490.80
TOTAL MUNICIPAL UTILITIES	836,826,200	17.15	$1,423,608.33
Other Water Sold	993,624,600	20.36	1,695,103.78
TOTAL SAN MATEO COUNTY	1,830,450,800	37.51	$3,118,712.11
SANTA CLARA COUNTY			
MUNICIPAL UTILITIES			
City of Palo Alto	128,101,400	2.63	$ 214,505.00
Milpitas Co. Water Dist.	36,135,000	0.74	64,790.49
City of Sunnyvale	33,162,000	0.68	57,888.47
City of Mountain View	24,829,900	0.51	47,986.79
Purissima Hills Co. Water Dist.	611,300	0.01	1,683.30
Oak Hill Mutual Water Co.	509,200	0.01	1,496.33
TOTAL MUNICIPAL UTILITIES	223,348,800	4.58	$ 388,260.38
Moffet Field	52,234,400	1.07	81,960.19
Other Water Sold	5,430,800	0.11	15,183.03
TOTAL SANTA CLARA COUNTY	281,014,000	5.76	$ 485,403.60
ALAMEDA COUNTY			
MUNICIPAL UTILITIES			
Hayward Mun. Water System	198,477,800	4.07	$ 321,707.96
Alameda Co. Water District	44,640,500	0.91	85,578.21
City of Pleasanton	7,675,000	0.16	14,551.91
TOTAL MUNICIPAL UTILITIES	250,793,300	5.14	$ 421,838.08
Other Water Sold	12,835,600	0.26	32,200.32
TOTAL ALAMEDA COUNTY	263,628,900	5.40	$ 454,038.40
TOTAL WATER SOLD SUBURBAN AREA	2,375,093,700	48.67	$4,058,154.11

These quantities are measured by the consumers meters and at least 10% must be added to them in order to determine the quantities of water required to be produced and released for consumption in each case. This is true for all quantities of water shown in this "Distribution and Consumption" section of the Annual Report.

DISTRIBUTION AND CONSUMPTION

GENERAL:

Outside of the City of San Francisco the Department distributes water in Garden Village, Northern San Mateo County and in Sunol, Alameda County. Sunol distribution was an obligation of the Spring Valley Water Company assumed by the City. All other suburban customers buy water delivered to them at our transmission mains and distribution is through consumer owned facilities.

The consumption figures given in "Production and Transmission" are the quantities delivered for consumption as measured by Venturi meters or other means in the transmission facilities. This section, "Distribution and Consumption", gives the quantities measured by the consumers' meters which quantities are the basis for payment. Another difference is the area and number of consumers considered as being in the City of San Francisco. Due to the location of transmission line meters, the consumption of a large portion of the inhabited area of the northerly 47 square miles of San Mateo County is included in the City consumption quantities in the "Production and Transmission" section.

The Sunol distribution system, in the Alameda Division, caused no unusual maintenance or operation problems. A total of 23.2 million gallons were delivered to the Sunol System for distribution.

In the City of San Francisco, there were no "no water" complaints due to the inadequacy of the system.

RESERVOIR AND TANKS:

All of the distribution reservoirs within the City limits are in good condition. The Sutro Reservoir is still showing an excess of leakage from both basins.

Lagunda Honda Reservoir was taken out of service with the building of Sunset Reservoir but was retained as a standby for emergency purposes. However, the development of the properties east of the reservoir has led to heavy amount of silt entering the reservoir during the winter rains.

The Presidio Heights and Clarendon Heights steel tanks have been sold and removed. The property at Pacific Avenue and Lyon Street, upon which the Presidio Heights tank was built, is now being sold.

FEEDER MAINS:

The need for new feeder mains and their change over from one reservoir to another is set up in the "Additions, Betterments and Replacements" section.

The project of installing the required feeder mains inside the limits of San Francisco is about complete.

PIPE SYSTEM:

The pipe system is gradually being improved by normal main extensions and the replacement of 4-inch and smaller mains with 6-inch and 8-inch cast iron mains. This latter program is being carried on, particularly, in areas where the Department of Public Works is reconstructing and repaving city streets. Shortage of funds prevents the Department from taking full advantage of this economical opportunity to replace small, inadequate mains.

Pipe tables showing lengths of various sized pipe laid, removed or abandoned, and totals in the system, together with valve record, are to be found in the Appendix.

PUMP STATIONS:

All pumping stations in the City, which were in use, operated without any serious mishaps. Alemany Pumps were not used during the year.

SERVICES AND METERS:

Forty one new suburban services were installed during the year ranging in size from 5/8" to 8". One service was enlarged and 72 were discontinued, 56 of which were taken over by local distributors. The net change was a reduction of 31 suburban services leaving a total of 704 as of June 30, 1957. On that date there were 1,028 meters in service in the suburban area including those temporarily shut off.

In the San Francisco District there were 1,114 orders for new services to be installed during the fiscal year and, in addition, there were 33 new automatic sprinkler insallations requested. On June 30, 1957 there were 154,401 metered live services not including 626 automatic sprinkler installations. At the end of the year there were 156,870 meters in service in San Francisco, including those temporarily shut off.

Active accounts in the suburban area decreased from 724 to 666 during the year, a decrease of 58. In San Francisco active accounts increased from 152,053 on June 30, 1956 to 152,653 on June 30, 1957, a gain of 600. For the entire system, the net increase was 658 or 0.4%.

The Consumers' Servicemen made some 30,000 calls during the year. While most of these calls were for the purpose of turning on or shutting off water and reading meters for closing bills, all at customers' requests, a great many calls were made in response to complaints.

All meter readings continue to be audited and, where any of the readings appear to be at variance with the usage normally expected, billing is usually held up pending an inspection by a Water Service Inspector. Some 27,325 bills were handled in this manner, most of which were found to be above normal usage because of extra usage by the customer or because of house pipe or fixture leaks,usually not known by the customer, or were found to be below normal usage because of less usage or non-registering meters. This procedure continues to find favor with our customers who have larger than normal usage, for they appreciate our interest in checking on the larger usage and, where leaks are found, they can make immediate repairs, thereby arresting further excess billing. This includes 6,327 call-backs required where the regular Meter Readers,for various reasons, could not obtain readings on their regular calls and it was not deemed advisable to issue estimated bills. Altogether, 35,968 inspections of varying degrees were made, including those requested by customers.

The number of domestic services installed during the fiscal year are shown below:

TABLE "A"

TOTAL SERVICES INSTALLED

NEW AND RENEWED

SAN FRANCISCO

Size Service	1953-54	1954-55	1955-56	1956-57
3/4"	1971	1811	1133	1535
1"	628	749	993	643
1½"	119	139	137	123
2"	54	57	61	72
3"	16	16	16	20
4"	13	20	8	7
6"	6	15	3	3
8"	2	11	0	2
12"	0	0	1	0
Total	2809	2818	2352	2405
% of 3/4"	70.2	64.3	48.2	63.8
% of 1"	22.3	26.6	42.2	26.7

TABLE "A"(Cont'd)

SUBURBAN

Meter Size	1953-54	1954-55	1955-56	1956-57
5/8"	14	9	12	16
3/4"	2	3	3	2
1"	3	7	6	7
1½"	2	5	0	1
2"	17	17	10	6
Larger than 2"	11	8	10	9
Total	49	49	41	41

In addition to the above, one existing service in the suburban area was enlarged.

The number of meters set during the fiscal year is shown below:

TABLE "B"

METERS SET

SAN FRANCISCO

Meter Size	1953-54	1954-55	1955-56	1956-57
5/8"	1392	1405	1492	1068
3/4"	34	60	32	98
1"	134	137	159	146
1½"	62	69	66	67
2"	226	178	175	208
3"	1	-	-	-
4"	-	-	1	-
6"	2	4	-	-
8"	-	-	-	-
Total	1851	1853	1925	1687
% 5/8"	75.2	75.8	77.5	63.3
% 3/4"	1.8	3.2	1.6	11.7
% 1"	7.2	7.4	8.4	8.7
% 1½"	3.4	3.7	3.4	4.0
% 2"	12.2	9.6	9.1	12.3

TABLE "B" (Cont'd)

SUBURBAN

Meter Size	1953-54	1954-55	1955-56	1956-57
5/8"	14	9	12	16
3/4"	2	3	3	2
1"	3	7	6	7
1½"	2	5	-	1
2"	17	43	28	6
3"	2	-	-	-
4"	1	2	1	1
6"	6	9	4	6
8"	7	-	9	7
Total	54	78	63	46

SERVICES AND METERS:

The number of meters changed during the fiscal year for all causes but mainly "no goes" are, as follows:

TABLE "C"

METER SET CHANGES

Meter Size	1953-54	1954-55	1955-56	1956-57
5/8"	4152	3631	3141	3302
3/4"	132	157	156	108
1"	94	102	112	111
1½"	79	77	65	48
2"	121	106	96	111
6"	-	-	-	-
8"	1	-	-	-
Total	4579	4073	3570	3680
% 5/8"	90.5	89.1	88.0	89.7
% 3/4"	2.9	3.8	4.4	2.9
% 1"	2.1	2.5	3.1	3.0

The following table shows the number of meters brought to the shop and not replaced:

TABLE "D"

METERS HOME

Meter Size	1953-54	1954-55	1955-56	1956-57
5/8"	444	672	553	792
3/4"	18	30	23	26
1"	27	57	43	39
1½"	31	21	19	30
2"	90	83	109	84
3"	1	-	-	2
4"	-	2	3	-
6"	2	3	3	-
8"	-	-	1	-
Total	613	868	754	973
% 5/8"	72.5	77.4	73.3	81.4
% 3/4"	2.9	3.5	3.0	2.7
% 1"	4.4	6.6	5.7	4.0

The number of Fire Sprinkler Services installed during the year is shown in Table 18 in the Appendix.

The number of abandoned domestic services for all causes is shown in Table "F":

TABLE "F"

ABANDONED DOMESTIC SERVICES

SAN FRANCISCO

Size Service	1953-54	1954-55	1955-56	1956-57
3/4"	1582	1606	916	1050
1"	94	69	85	269
1½"	23	19	12	42
2"	7	5	11	17
3"	1	1	-	-
4"	-	1	-	-
6"	-	-	-	-
8"	-	-	-	-
Total	1707	1701	1024	1378
% 3/4"	92.8	94.4	89.4	76.2
% 1"	5.5	4.1	8.3	19.5

MAINTENANCE AND OPERATION:

The employees at the Corporation Yard office at 639 Bryant Street prepared 732 requisitions during this fiscal year and processed the purchase orders; issued 9,238 paving orders, which required 5,804 street opening permit requests; processed 1,857 revolving fund transactions; coded and posted to payrolls, daily, the time for some 125 per diem employees; prepared reports for all trucks and equipment. Cost data was maintained on all work orders, recoverable charges and contracts awarded to the San Francisco Water Department. There are some 3,500 different items carried in stock, which must be kept in balance at all times.

The work of the Machine Shop not only includes the repair and maintenance of automobiles and equipment, including pumps, the fabrication of all sizes and types of steel fittings used in the pipe system, but also includes the fabrication of all types and kinds of cast iron and bronze fittings. The fabrication of all fittings is in open bidding against outside competition.

The major fittings manufactured in the shop are the following: gate valves 2" to 16", detector checks 4", 6" and 8"; all sizes of pipe lugs; all sizes of leak bands.

Many tools are also made in the Machine Shop such as tapping machines, pipe cutting machines and accessories for chlorine control.

The Meter Shop repairs and tests water meters. Many tools have been developed for the repair of meters in the meter shop.

COMPLAINTS:

Tables No. 20, 21 and 22 in the Appendix give a comparison of the different types of complaints.

Service calls are made as soon as possible after receipt of a complaint which results in good public relations. Many calls are preliminary and further calls are required by the Special Complaints Inspector, who made over 2,600 calls during the year. Some 1,200 of these required removal of the meter to measure the rate of flow in poor supply complaints.

There were 1,268 inspections made to investigate complaints of poor supply (Table No. 22 in Appendix). It was found that only in a few cases the distribution system was inadequate, the principal cause being corrosion of the service and/or house pipes. In many cases it was determined that the service and/or the meter was too small.

The programs whereby small distribution mains are being replaced with larger mains; the installation of new feeder mains and the changing of distribution areas from one reservoir to another will, on completion, remove that source of "poor supply" complaints. This work is set forth in the "Additions, Betterments and Replacements" section.

Inadequate service pipes are being renewed as funds become available. During this fiscal year there were 1,384 service pipes abandoned and renewed. In April 1957 a policy of renewing services with galvanized wrought iron,instead of galvanized steel pipe previously used, was initiated.

Large bills continue to be a major source of common complaint. Dirty water is the principle water quality complaint.

The Department has continued its courtesy policy of giving aid to our consumer cities in their investigation of water quality complaints.

CONSUMPTION:

Registration through the consumers meters in the suburban area, excluding Municipal non-pay accounts, totaled 2,375.1 million cubic feet (17,765.7 million gallons), equivalent to an average of 48.67 million gallons per day. This is an increase over the previous year's 2,253.8 million cubic feet of 5.4%. In San Francisco the meter registration was 3,619.6 million cubic feet (27,074.6 million gallons) or an average of 74.2 million gallons per day. This is a decrease under the previous year's 3,634.2 million cubic feet or 0.56%.

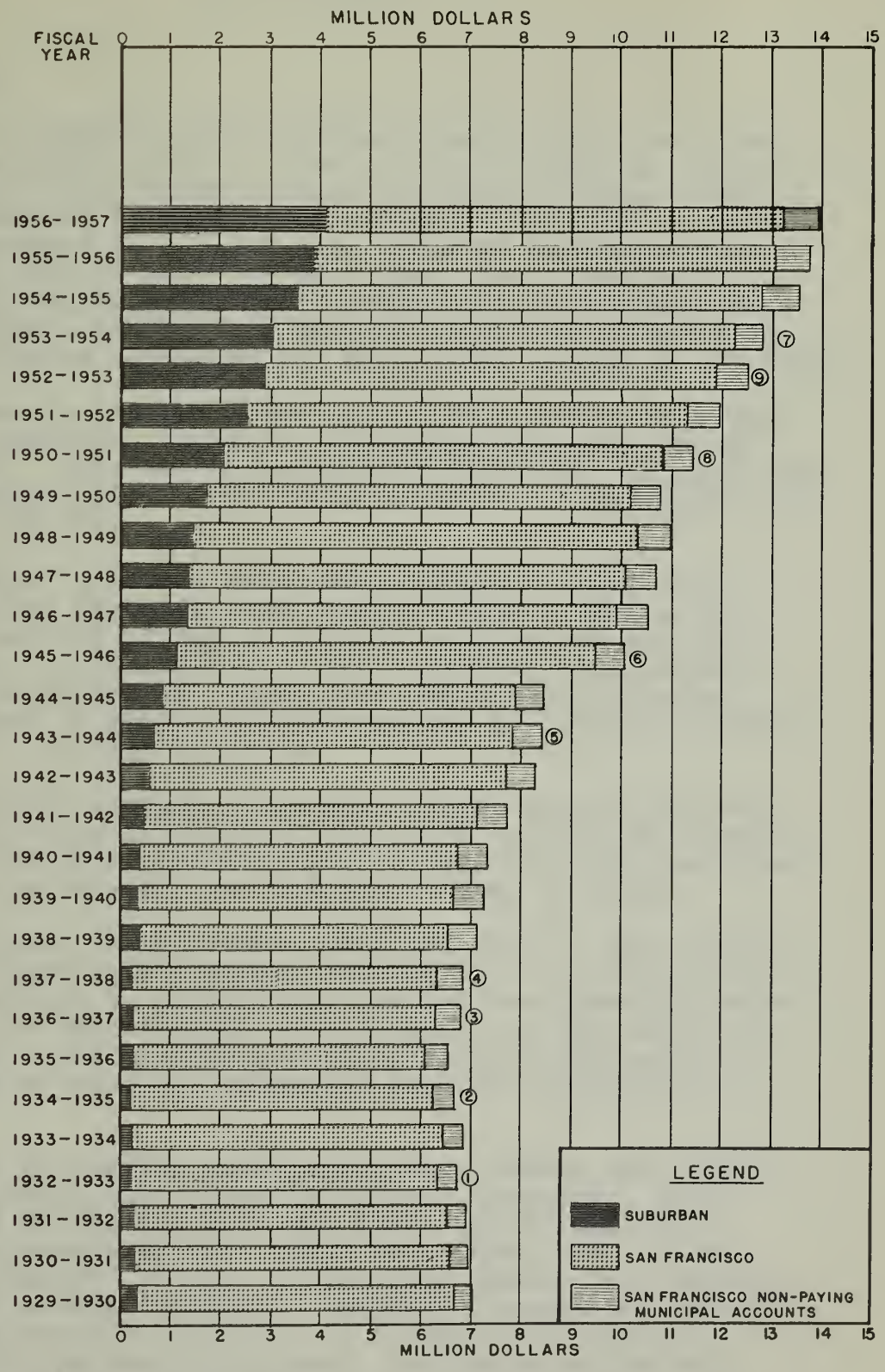
In 1955-56 San Francisco consumption was 61.7% and Suburban 38.3% of the total while this year the corresponding figures are 60.4% and 39.6%.

The entire system consumption increased from 5,888.0 million cubic feet for 1955-56 to 5,994.7 million cubic feet for 1956-57, an increase of 106.7 million cubic feet (798.1 million gallons) or 2.2 million gallons per day.

Included in the foregoing was water delivered to Municipal Utilities and Water Districts in the Suburban area, taking water for resale in an amount of 1,311.0 million cubic feet (9,806.3 million gallons), or 26.9 million gallons per day. Water delivered to private utilities in the same area totaled 947.6 million cubic feet (7,089.0 million gallons) or 19.4 million gallons per day.

SAN FRANCISCO WATER DEPARTMENT

WATER SALES



RATE CHANGES:—

① OCT. 26, 1932 75% REDUCTION ON FIRE SPRINKLER SERVICE CHARGES.

② DEC. 1, 1934 10% REDUCTION ON ALL RATES EXCEPT HYDRANTS AND SPRINKLERS.

③ JAN. 1, 1937 7% & 48% REDUCTION ON INCREASED USAGE AT INDUSTRIAL & WHOLESALE RATES.

④ JAN. 1, 1938 7% & 48% REDUCTION APPLIED TO ALL " " " " " "

⑤ DEC. 1, 1943 15% REDUCTION TO ALL CONSUMERS WITHIN CITY & COUNTY OF SAN FRANCISCO.

⑥ SEPT. 1, 1945 PRECEDING 15% REDUCTION REMOVED FOR CONSUMERS WITHIN CITY & COUNTY OF SAN FRANCISCO. 15% INCREASE FOR SUBURBAN CONSUMERS.

⑦ ~~JULY 1, 1949 INCREASE OF HALF CENT PER 100 CU. FT.—SAN CARLOS & SAN MATEO.~~ DELETED 7-1-53

⑧ FEB. 1, 1951 INCREASE FOR FOURTH BLOCK WATER TO 15 CENTS FOR CITY & 16 CENTS FOR SUBURBAN; 10% DISCOUNT ON FOURTH BLOCK IF WATER WERE NOT TAKEN FOR RESALE.

⑨ JULY 1, 1952 BEGAN CHARGING REGULAR RATES TO 14 CONTRACT REDUCED RATES CONSUMERS.

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R E V E N U E

WATER SALES:

Sales of water to our customers during the fiscal year 1956-57 grossed $14,019,426. Our policy of allowing credits on customers' bills, where leakage occurred in house piping or fixtures, resulted in customers' savings of $25,011 so that Net Sales amounted to $13,994,415. This is an increase over the previous year of $206,042 or 1.49%. Net Sales in San Francisco, including $731,454 to other Municipal Departments in lieu of taxes, amounted to $9,936,751 or 71% of the total. Suburban Net Sales accounted for $4,057,664 or 29% of the total.

Included in the above was $2,233,707 derived from sale of water to Municipal Utilities and Water Districts in the Suburban Area. This is an increase of $173,679. Revenue from sale of water to private utilities amounted to $1,579,563, an increase of $39,007.

Customers' Accounts Receivable showed a balance of $982,352 due the Department at June 30, 1957. Again, this shows that over 20% of our billing is paid before the end of the month. Collections for the year were $13,161,962, an increase of $114,238. There were 943,074 bills issued during the year of which 887,039 were for bi-monthly accounts and 56,035 for monthly accounts.

Some 18,774 closing bills were issued during the year. Uncollectible bills totaled $8,848, being only 0.06% of Sales. The Suspense balance, consisting of closed accounts awaiting collection or write-off, was $13,578 at June 30, 1957.

Backbilling in accordance with the July 1, 1952 opinion of the City Attorney concerning reduced rate and free water contracts amounted to $123,623.26 for the two preceding years. This amount has been reduced by $27,805.19 to $95,818.07 on June 30, 1957. Out of that reduction $443.14 was paid "in protest", the balance was cancelled through litigation or negotiation.

Billing at regular rates continued, during the fiscal year, on the remaining former "contract" accounts. Total amount billed during the year was $727,764.04 which was $60,358.15 in excess of that which would have been billed under the "contract" rates. In the five years since regular billing began on the "contract" accounts, charges at regular rates have produced $276,679.43 in "additional" revenue. These accounts, on past experience, average approximately $4,000 per year in combined "additional" revenue over that formerly received.

OTHER INCOME:

Revenue from rentals, royalties and taxes paid by tenants amounted to $264,860.84 for the year which is $27,158.47 more than the previous year. Rentals from Agricultural leases decreased a net of $175.53 even though flat rate and specialty crop rentals increased $14,983.79. The largest drop in this classification was in Share Crop rentals, a decrease of $14,528.11, while Cattle Leases showed a smaller drop.

Receipts from non-agricultural royalty and percentage leases increased $25,976.72 over the previous year. This is an increase of 44 percent, even though the Lowrie Quarry lease was cancelled and the quarry was not operated.

Gross return of $67,425.47 from the walnut orchards is an increase of $22,901.83 as compared to last year. However the net cash received, $4,802.12, was $1,319.41 less than for 1955-56 due principally to much higher harvesting, packing house and selling expenses.

Interest on bank balances increased over the previous year from $4,697.25 to $23,154.60.

The reduced income from sale or abandonment of fixed assets accounts for the drop in the "Miscellaneous" category of "Other Income". The balance is from smaller items including rentals from Department owned cottages that are occupied by employees and increased $4,893.59 over the preceding year.

The total gross income from the Agricultural Division for this year of $332,286.31 was $50,060.30 more than the preceding year and was the highest for any year in the history of the Agricultural Division. Expenses of $89,465.48 leaves a net income of $242,820.83, which is the fourth highest for the Division.

C L A I M S

Claims filed by the Department during the year against others, principally street work contractors, who damaged our facilities amounted to some 91 in number for a total of $22,353.47. Including the balance pending at the beginning of the year, 152 claims were processed against others in the total sum of $30,778.68. Of these, payment in full was received on 66 claims and 17 were settled by compromise. Amounts received totaled $6,957.69 out of $7,935.48 or 88% recovery. Claims against others pending at June 30, 1957 were 53 in number and $21,136.82 in amount.

During the year, 262 claims in the total amount of $535,056.89 were filed against the Department. Claims pending at the beginning of the year numbered some 135 for a total of $279,512.49 so that some 397 claims in the total amount of $814,569.38 were processed. Another 238 claims totaling $213,856.00 were settled for $35,448.84 so that the total saving to the Department on claims settled was $178,407.16. Three claims totaling $504.99 involved operating equipment and were turned over to our insurance carriers. At June 30,1957, 156 claims, in the sum of $600,208.38 remained. Of these, however, 129 claims, totaling $286,739.48 were in connection with "contract" accounts and are in litigation, so that 27 claims in the total amount of $313,468.90 remained as a result of the Department's operations.

In addition to the foregoing, 239 cases of damage were investigated on which no formal claims were filed. Also processed and routed for proper handling were 584 reports of dangerous conditions of the Department's facilities. This was in line with our policy of safeguarding our installation, so far as we can, before accidents happen, rather than after.

ADDITIONS, BETTERMENTS AND REPLACEMENTS

Plans and specifications were prepared for 37 formal and 3 informal Water Department contracts for a total estimated construction cost of $2,125,000. Engineering supervision and inspection services were provided for $2,770,000 of contract work actually completed during the year. Of the 37 formal contracts for which plans and specifications were prepared during the fiscal year 1956-57, 17 were for water main extensions.

Two of these extensions were awarded to the Water Department in an amount totaling $59,825.50. One of these, together with two contracts awarded them last year, were completed at a cost of $13,548.46 or $2,929.54 less than the bid price of $16,478.00. The other extension was 35% complete on June 30,1957. The Water Department bids these jobs to assure a reasonable cost.

A survey of proposed capital improvements to the water system was made, in connection with budgetary and city planning purposes, for the period beginning July 1, 1958 and ending June 30, 1964. Water Department requirements for this period were estimated at some $58,300,000 worth of improvements having varying degrees of urgency. A number of the more essential projects programmed to start in that time and for which funds are needed in whole or in part include the following projects:

Project	Total Estimated Cost July 1, 1958 to June 30, 1964
San Antonio Dam Project	$ 6,840,000
Crystal Springs Pipeline No. 3	8,950,000
Bay Division Pipeline No. 4	23,800,000
Balboa Reservoir Development - two basins	6,000,000
Operation and Maintenance headquarters	2,445,000

On June 30, 1957 construction of the 90-inch 5,100 foot long Hillsborough Tunnel was 91% completed; the excavation and embankment work for the south basin of Sunset Reservoir was 96% completed while that for both basins of the Balboa Reservoir was 90% complete.

Plans and specifications for Sunset Reservoir lining and roof were 30% completed on June 30, 1957.

The relocation of Crystal Springs pipelines No. 1 and 2, around Guadalupe Marsh near Brisbane,was completed during the year.

Some 15,500 feet of Bay Division Pipeline No. 1 was centrilined this year. This line is now centrilined from Ravenswood to Topaz Street in Redwood City. The benefit is twofold--increased life of pipeline and increase in carrying capacity.

Electrolysis surveys and tests were made during the year on Bay Division Pipeline No. 1 at Newark and southeast of Willow Road, Menlo Park; on Crystal Springs pipelines No. 1 and 2 at Brisbane and on the No. 2 line in South San Francisco at Randolph Street; on the Crystal Springs pumps 48-inch discharge line near the pump station and on the Alameda 36-inch pipeline at Hillsdale. Readings were taken and recorded at the existing installations at Newark, Vera Creek, Ravenswood and Adobe Flats and the installations inspected. Two operational failures at the Vera Creek installation were located and repaired.

From past experience a hot spell of several days' duration would create a serious situation throughout the City. This condition can only be overcome by the laying of additional feeder mains in the various distribution districts, as well as the rearrangement of the existing feeder mains. Additional supply mains should also be given consideration. Funds were made available in the budget for the laying of some of the feeder mains.

Following is a list of additional feeder mains still required, by district.:

Sunset Reservoir District	Feet
12" - O'Farrell & Octavia to O'Farrell & Larkin	2400
12" - Dolores St., 21st St. to 24th Street	1700
12" - Gough St., O'Farrell to Geary Streets	300
University Mound Reservoir District	
16" - 22nd St., Indiana St. to 3rd St.	800
12" - Woolsey & Goettingen to Jamestown & 3rd St.	4000
College Hill Reservoir District	
16" - Bowdoin & Alemany to Girard & Mansell	7000

In order to maintain the existing pressures for domestic supply when the feeder mains are transferred from one district to another, it will be necessary to lay the following distribution mains:

8" - Ellis St., Van Ness to Octavia Sts.	1450
8" - Post St., Powell to Kearny Sts.	1350
6" - Larkin St., Post to O'Farrell Sts.	700
8" - O'Farrell St., Fillmore to Buchanan St.	950
8" - 24th St., Sanchez to Dolores Sts.	1350

The steel asphalt coated feeder mains listed below are in very poor condition, it being necessary to make many repairs on them due to small leaks.

30" - South of Tingley and San Jose to Diamond & Wilder	1500
22" - Divisadero, Fulton to Geary Streets	2300
16" - Harold and Bruce to Diamond and Chenery	9000

Following is a list of feeder mains which will be transferred from one district to another for better distribution and which will be accomplished when the fore-mentioned feeder mains have been laid:

Size	LOCATION From	LOCATION To	RESERVOIR From	RESERVOIR To
16"	Larkin & Jackson	Larkin to Francisco	P.H. Regulators	Sunset
12"	Post & Powell	Post & Kearny	University Mound	College Hill
12"	Stockton & Post	Stockton & Sutter		
12"	Larkin & Post	Larkin & O'Farrell	College Hill	Sunset
12"	O'Farrell & Larkin	Jones & Geary		
12"	Leavenworth & O'Farrell	Leavenworth & Geary		
12"	Post & Fillmore	Buchanan & O'Farrell		
16"	Fillmore & Bush	Fillmore & Hayes		
12"	24th St. & Sanchez	24th St. & Dolores		
12"	O'Farrell & Fillmore	O'Farrell & Buchanan		
12"	17th St. & Pond	17th St. & Douglass	Stanford Hts.	Sunset
12"	17th St. & Douglass	17th St. & Ashbury	Stanford Hts.	Sutro
12"	Douglass & 24th St.	22nd St. & Diamond		
12"	Plymouth & Lobos	Ridgewood & Mangels		
20"	Lyon & Washington	Ashbury & 17th Sts.		
16"	Kirkham & 8th Ave.	20th Ave. & Moraga		
20"	20th Ave. & Morage	Taraval & Dewey		
12"	Ellis & Van Ness	Ellis & Laguna	Sunset	College Hill
30"	Sloat & 23rd Ave. (Central Pumps)	Portola & Claremont	Sunset	Sutro
30"	Santa Clara & Portola	Capitol & Sadowa		
12"	Ocean & Faxon	Ocean & Harold		

Again, this year, several of the proposed feeder mains could not be installed due to the condition of the proposed route, i.e., the 12" cast iron feeder from Oneota and University to Harkness and Goettingen, because the streets are not to grade; the 12" cast iron main from O'Shaughnessy and Portola to Mangels and Rigewood could not be laid due to the proposed reconstruction of O'Shaughnessy Boulevard.

FORMAL CONTRACTS:

1. Additions to City Pipe System:

In all contracts involving the laying of cast iron or transite pipe or the installation of services, the Contractor is required to obtain the pipe and fittings from the Water Department. The cost of this material, of connections made by the Department's forces, and of engineering and inspection are included in the following stated contract costs. In cases where the Water Department acts as the Contractor, the cost given is the actual cost of the completed work.

Extensions and replacements to the Department's distribution grid system are made under contract, the Department furnishing all necessary pipe, fittings and services material. The value of these items, and the engineering and inspection costs are set up in the contract bid sheets in a manner so that the "bid total" includes the cost of furnished items, engineering and inspection, and the summation represents the total cost to the Department for the facility. On most of this class of work the Water Department submits a bid and does the work if its bid is the lowest of those received.

Contract No. 739--For the installation of 45 services and the laying of 1,269 feet of 6-inch, 1,289 feet of 8-inch and 1,538 feet of 12-inch cast iron mains in Panorama Terrace No. 1. The contract was awarded to Fred T. Fairey on November 21, 1955 and completed on July 7, 1956 at a cost of $31,141.53.

Contract No. 744--For the laying of 6,100 feet of 12-inch cast iron mains in 8th Avenue between California and Fulton Streets and in California Street between 23rd and 29th Avenues. The contract was awarded to Michael Murphy, Jr. on December 12, 1955 at an estimated bid price of $63,107.50. On June 30, 1957 work had not been started. The Department of Public Works has refused to issue the street opening permit. Attempts are being made to cancel this contract.

Contract No. 745--For the installation of 43 services and the laying of 102 feet of 2-inch and 968 feet of 6-inch cast iron mains in Thrift Street between Plymouth Avenue and Summit Street and in Alpha Street between Wilde and Tucker Avenues. The contract was awarded to the San Francisco Water Department on December 27, 1955 and completed on February 1, 1957 at a cost of $7,073.64.

Contract No. 760--For the installation of 19 services and the laying of 494 feet of 8-inch cast iron main in Chicago Way between Naylor Street and South Hill Boulevard (Sutro Project). The contract was awarded to the San Francisco Water Department on June 4, 1956 and completed on July 13, 1956 at a cost of $4,919.64.

Contract No. 762--For installing 16 services and the laying of 634 feet of 6-inch cast iron mains in Campbell Avenue and Somerset Street. The contract was awarded to Michael Murphy, Jr. on June 18, 1956 and completed on August 6, 1956 at a cost of $4,968.73.

Contract No. 763--For the laying of 965 feet of 6-inch cast iron main in Foerster Street between Los Palmos Drive and Teresita Boulevard. The contract was awarded to Michael Murphy, Jr. on June 18, 1956 and completed on August 21, 1956 at a cost of $4,840.04.

Contract No. 765--For the relocation of 48-inch steel main in Boylston Street between Gaven and Sweeney Streets. The contract was awarded to Associated Pipeline, Inc. on July 30, 1956 and completed on September 25, 1956 at a cost of $11,883.48.

Contract No. 766--For installing 12 services and the laying of 807 feet of 6-inch cast iron mains in Powhattan and Peralta Avenues and in Mojave and Bradford Streets. The contract was awarded to Fred T. Fairey on August 6, 1956 and completed on September 27, 1956 at a cost of $5,782.39.

Contract No. 768--For installing 42 services and the laying of 134 feet of 2-inch, 198 feet of 4-inch and 2,087 feet of 6-inch cast iron mains in Larkin, Francisco and Jones Streets and Columbus Avenue (replacement of 1½-inch and 2-inch existing mains). The contract was awarded to Fred T. Fairey on September 4, 1956 and completed on December 7, 1956 at a cost of $20,443.48.

Contract No. 770--For the laying of 603 feet of 8-inch cast iron main in Olympia Way between Clarendon and Dellbrook Avenues. The contract was awarded to Fred T. Fairey on September 4, 1956 and was completed on October 9, 1956 at a cost of $3,489.41.

Contract No. 772--For installing 52 services and the laying of 674 feet of 6-inch and 1,691 feet of 8-inch cast iron mains in Congo and Stillings Streets and Martha and Cortland Avenues. The contract was awarded to Fred T. Fairey on September 4, 1956 and completed on November 7, 1956 at a cost of $20,111.16.

Contract No. 773--For installing 47 services and the laying of 278 feet of 4-inch, 50 feet of 6-inch and 2,333 feet of 8-inch cast iron mains in Midtown Terrace Subdivision No. 5. The contract was awarded to Michael Murphy, Jr. on October 1, 1956 and completed November 7, 1956 at a cost of $16,290.06.

Contract No. 774--For the relocation of 246 feet of 6-inch cast iron main in Nineteenth Street between Rhode Island and DeHaro Streets. The contract was awarded to the San Francisco Water Department on September 11, 1956 and completed on September 28, 1956 at a cost of $1,555.18.

Contract No. 778--For installing 97 services and the laying of 150 feet of 4-inch, 1,900 feet of 6-inch and 4,600 feet of 8-inch cast iron mains in Upper Market Street area. The contract was awareded to the San Francisco Water Department on October 29, 1956 at an estimated bid price of $57,105.00. On June 30, 1957 the job was 35% completed.

Contract No. 780--For the laying of 905 feet of 20-inch and 788 feet of 24-inch steel mains in Corbett Avenue and Portola Drive. The contract was awarded to Associated Pipeline, Inc. on November 19, 1956 and completed on February 7, 1957 at a cost of $46,094.81.

Contract No. 782--For the laying of 121 feet of 8-inch cast iron main in El Dorado Street east of Michigan Street. The contract was awarded to Fred T. Fairey on November 13, 1956 and completed on December 24, 1956 at a cost of $2,415.60.

Contract No. 784--For the laying of 3,370 feet of 16-inch cast iron main in Franklin Street between Market and Ellis Streets. The contract was awarded to Michael Murphy, Jr. on December 10, 1956 and completed on June 27, 1957 at a cost of $54,790.20.

Contract No. 787--For the laying of 3,300 feet of 16-inch cast iron main in Sanchez and Steiner Streets between Seventeenth and Haight Streets. The contract was awarded to Michael Murphy, Jr. on December 17, 1956 and completed on April 17, 1957 at a cost of $62,805.47.

Contract No. 788--For the laying of 1,309 feet of 8-inch cast iron main in Delano Avenue from Santa Ynez Street to Oneida Avenue. The contract was awarded to Associated Pipeline, Inc. on April 9, 1957 and completed on June 4, 1957 at a cost of $12,379.89.

Contract No. 789--For the laying of 707 feet of 8-inch cast iron main in Glenbrook Avenue between Palo Alto and Mountain Springs Avenues. The contract was awarded to Michael Murphy,Jr. on January 21, 1957 and completed on April 24, 1957 at a cost of $5,228.83.

Contract No. 790--For installing 2 services and the laying of 18 feet of 6-inch and 588 feet of 8-inch cast iron main in McKinnon Avenue between Barneveld Avenue and a point 175 feet east of Upton Street. The contract was awarded to Michael Murphy, Jr. on March 12, 1957 at an estimated bid price of $4,330.95. On June 30, 1957 the job was 90% completed.

Contract No. 792--For the laying of 2,552 feet of 12-inch cast iron main in Galvez Avenue and Keith Street from Third Street to Fairfax Avenue. The contract was awarded to Fred T. Fairey on March 5, 1957 and completed on April 2, 1957 at a cost of $25,505.53.

Contract No. 794--For installing 40 services and the laying of 191 feet of 4-inch, 967 feet of 6-inch and 601 feet of 8-inch cast iron mains in Amherst Terrace Subdivision. The contract was awarded to A. Dale Williams on May 7, 1957 and completed on June 19, 1957 at a cost of $10,013.31.

Contract No. 795--For the laying of 525 feet of 8-inch cast iron mains in Alabama Street north of 16th Street. The contract was awarded to Fred T. Fairey on May 21, 1957 and completed on June 25, 1957 at a cost of $5,005.59.

Contract No. 797--For installing 22 services and the laying of 1,160 feet of 6-inch cast iron mains in Holladay Avenue and in Valmar Terrace. The contract was awarded to Louis L. Cima on June 4, 1957 at an estimated bid price of $7,144.50. On June 30, 1957 work had not started.

2. Additions to Supply and Transmission Facilitites.

Contract No. 672--For the relocation of the Crystal Springs 60-inch and 44-inch pipelines, Guadalupe Valley near Brisbane, San Mateo County. The contract was awarded to M & K Corporation on April 11, 1955 and completed on September 14, 1956 at a cost of $410,093.48. In addition to this the City furnished pipe which cost $131,739.15.

Contract No. 696--For the laying of 5,203 feet of 12-inch steel pipe as a part of the Sunol Water Supply system. The contract was awarded to the Underground Construction Co., on November 26, 1956 and completed on February 1, 1957 at a cost of $36,549.59.

Contract No. 734--For the construction of Hillsborough Tunnel, as a part of the Crystal Springs No. 3 and Sunset Pipelines, in Hillsborough, San Mateo County. The contract was awarded to Peter Kiewit Sons' Company on October 24, 1955 for an estimated bid price of $1,366,830.50. On June 30, 1957 the work was 91% complete.

Contract No. 781--For the construction of Crystal Springs and Sunset Pipelines from near Hillsborough Bridge to Burlingame, San Mateo County. The contract was awarded to McGuire and Hester on March 19, 1957 at an estimated bid price of $848,902.00. On June 30, 1957 the work had not started.

3. Miscellaneous Contracts.

Contract No. 704--For the excavation and embankment of Balboa Reservoir, both basins. The contract was awarded to Piombo Construction Co. on August 20, 1956 at an estimated bid price of $362,714.20. On June 30, 1957 the work was 90% completed.

Contract No. 730--Electrical alterations at 425 Mason Street. The contract was awarded to the Republic Electric Co. on November 13, 1956 and completed on March 5, 1957 at a cost of $7,220.00.

Contract No. 736A--For the conversion of valves on transmission mains to power operation. The contract was awarded to the San Francisco Water Department on June 11, 1957 at an estimated bid price of $12,571.76. On June 30, 1957 work had not started.

Contract No. 738--Electrical alterations at Peninsula Division Headquarters, Millbrae. The contract was awarded to the Mahoney Electric Co., on February 27, 1956 and completed on June 22, 1956 at a cost of $10,194.00.

Contract No. 742--For the excavation and embankment of Sunset Reservoir, South Basin. The contract was awarded to Piombo Construction Co. on February 14, 1956 at an estimated bid price of $758,070.00. On June 30, 1957 work was 96% completed.

Contract No. 761--For the repavement of street and sidewalk openings made by the Department for installation or repair work during the fiscal year 1956-57. The contract was awarded to Charles L. Harney, Inc. on June 18, 1956 and terminated on June 30, 1957 at a cost of $136,951.56. Pavement over trenches opened by other contractors performing work for the Department is not included under this annual paving contract, as they are required to provide their own repaving.

Contract No. 764--For cleaning and coating of exterior of Water Department Building at 425 Mason Street, San Francisco. The contract was awarded to the Fulton Painting Co. on June 25, 1956 and completed on October 31, 1956 at a cost of $4,985.00.

Contract No. 767--For roofing the Water Department building at 425 Mason Street, San Francisco. The contract was awarded to Malott and Peterson-Grundy on August 6, 1956 and completed on October 9, 1956 at a cost of $14,806.00.

Contract No. 769--For the relocation of the 72-inch Bay Division Pipeline No. 3 at Calabazas Creek. The contract was awarded to E. T. Haas Company on March 5, 1957 and completed on June 6,1957 at a cost of $36,755.69.

Contract No. 771--For gathering and delivering the 1956 walnut crop from the orchard near Sunol. The contract was awarded to San Ramon Farm Supply on August 13, 1956 and completed on November 15, 1956 at a cost of $12,507.13.

Contract No. 776--For the reconditioning of Bay Division Pipeline No. 1 from Willow Road to Woodside Road. The contract was awarded to Pipe Linings, Inc. on October 22, 1956 and completed on January 24, 1957 at a cost of $136,419.49.

Contract No. 779--For the construction of the San Andreas Creek Alum Treatment plant in San Mateo County. The contract was awarded to C. J. Collins Co. on October 8, 1956 and completed on December 12, 1956 at a cost of $20,402.83.

Contract No. 783--For replacing the Chlorine Building at North San Andreas Outlet in San Mateo County. The contract was awarded to Arthur Bros. on March 26, 1957 and completed on June 18, 1957 at a cost of $20,690.30.

Contract No. 785--For repairing Bay Division Pipelines No. 1 and 2, trestle and housing, in Alameda County. The contract was awarded to C. J. Collins Co. on December 3, 1956 and completed on June 3, 1957 at a cost of $7,952.21.

Contract No. 786--For Crystal Springs Pump Station, electrical alterations, in San Mateo County. The contract was awarded to Electrical Maintenance & Service Co. on May 28, 1957 at an estimated bid price of $8,734.00. On June 30, 1957 work had not started.

Contract No. 793--For lighting in rooms 401, 403 and 701, Water Department Building at 425 Mason Street. The contract was awarded to Decker Electrical Construction Co. on June 18, 1957 at an estimated bid price of $2,048.00. On June 30, 1957 work had not started.

Contract No. 803--For painting stairway, corridors, part of 7th and all of 8th floors at 425 Mason Street. The contract was awarded to D. Zelinsky and Sons on June 25, 1957 for an estimated bid price of $2,193.00. On June 30, 1957 work had not started.

Contract No. 805--For painting of corporation yard office at 639 Bryant Street. The contract was awarded to Atlas Painting Company on June 25, 1957 at an estimated bid price of $1,578.00. On June 30, 1957 work had not started.

4. Informal Contracts.

The following work involving amounts of less than $2,000 for each contract, was done under a service order issued, after posting a bid invitation and receiving informal bids.

Informal Bid No. I-129--For roofing the Mezzanine Skylight opening at 425 Mason Street, San Francisco, California. An order for service or work was issued to Roy Madsen who completed the work at a cost of $1,892.00.

Informal Bid No. I-130--For roofing and guttering the San Francisco Water Department Keeper's Cottage at San Andreas Reservoir, San Mateo County. An order for service or work was issued to Bishop Roofing Co. who completed the work at a cost of $1,469.00.

Informal Bid No. I-131--For cleaning and painting of the Belmont Standpipe, San Mateo County. Cancelled.

LANDS, LEASES AND PERMITS

LAND TRANSACTIONS:

At the beginning of the year 62,787.073 acres were owned by the Department; sales of 4.318 acres and purchases of 8.131 acres during this year leaves 62,790.886 acres on June 30, 1957. Parcels sold and purchased were:

PURCHASES:	Acres	Acres
Parcel 12-Hillsborough Tunnel-San Mateo Co.		5.000
Parcel 44-Hillsborough Tunnel-San Mateo Co.		0.381
Parcel 146-Bay Division P/L No. 3 - Santa Clara Co.		2.750
SALES:		
Port. of Par. 42-Alameda P/L-Fair Oaks-San Mateo Co.	1.98	
Par. 382A-Bay Division P/L No. 3-San Mateo County	0.731	
Par. 30 - Silva Tract - Millbrae-San Mateo County	1.607	
	4.318	8.131
NET INCREASE IN ACRES:		3.813

Out of the above acreage 35,586 acres are under lease or revenue producing permits. A breakdown of the leases follows:

CATTLE LEASES:

There were 17 leases covering 29,869 acres in effect at the end of the fiscal year. These leases run from 5 to 7 years.

Over one-half of the cattle leases operate under the "sliding scale" rental formula. The rental is determined from the official Federal-State Market News Service official reports based on the price of beef in a particular classification during July for the following November 1 billing date. The balance of these leases are on a cash rental basis.

The highest possible rental is obtained depending on the condition of the land. Recent surveys conducted by the Department of Agriculture indicate that rentals paid for the use of Water Department grazing land was 30 to 40% higher than rentals paid for use of adjacent privately owned land. Rentals for the Department grazing lands run from $2.00 to $6.50 per acre.

The tenants continued the conservation program by developing springs and stock dams and the practice of controlled grazing.

Over 90% of the Department's boundary fences adjacent to leased areas have been replaced or improved by the tenants during the past four years. It is anticipated this program will be completed in 1958.

SHARE CROP AND FARMING LEASES:

At the end of the year there were 15 share crop and cash rental farming leases in effect, covering 3,386 acres. Principal crops raised were oats, barley and wheat hay in addition to barley and wheat grain.

Over 140 tons of hay was stored in the City's barn at Sunol and held for higher prices. This resulted in a gain of $9.50 per ton over the low prices offered during the harvest season.

The City receives one fourth of the crops grown under the share crop leases and where grazing is permitted, after removal of the crops, an additional cash rental is collected.

SPECIALTY LEASES:

These include strawberry leases, roses, gladiolis, string beans, cucumbers and other cultivated row crops which bring higher rental returns.

Rentals of strawberry land yield $100 and over per acre, while beans, flowers and row crops pay $65.00 rental per acre. Land rented for hay and grain share crops normally yield $20 to $25 per acre.

ROYALTIES AND PERCENTAGE LEASES:

The new $100,000 Crystal Springs Golf Course clubhouse constructed by the Lessee, replacing the one destroyed by fire, was dedicated in March. This was constructed under a 12 year lease granted in 1956 by which the Lessee was to have erected a clubhouse costing at least $45,000.

Operations of the Lessee of the Skyline Rock Quarry for this fiscal year resulted in an income for the Water Department of $42,000. This is the second highest annual income ever received from this quarry.

The Lowrie Quarry lease was cancelled and the Lessee is expected to restore the premises to a reasonable condition before October 1957.

REVOCABLE PERMITS:

There were 106 revocable permits processed during this fiscal year.

WALNUT ORCHARD:

A severe attack of "dieback" affected some 40 acres of walnut trees resulting in a tremendous amount of dead wood which will require at least two years to cut out due to the shortage of labor and lack of power pruning equipment.

This condition, and lack of mechanical harvesting equipment, increased the contract cost of harvesting the crop to $149.00 per ton. The cost would have been higher if the new huller, washer and bulk receiving pit had not been installed.

The 1956 crop, in spite of the above, produced the second highest gross income in the history of the walnut orchard. This was due in part to the fine quality of the nuts which sold for up to $800 per ton. They were the highest quality and best size delivered to the Walnut Growers' Association this year. The 40 acres of nine year old trees produced its first crop (8 tons) which accounted for some of the increase in returns.

The trees were fertilized this year with shell nitrogen gas and ammonium nitrate. The sprinkler system of irrigation maintained an adequate supply of moisture with the minimum of labor cost.

GENERAL:

Control work and the program for weed control, sanitary measures and rodent control, in cooperation with the various Departments of Agriculture, Health Boards and the University of California in various experiments, has been beneficially carried on.

The increasing number of non-agricultural leases and the diversified duties of the "Superintendent of the Agricultural Division" prompted a title change to "Superintendent of the Agricultural and Land Division" which was effected during the year.

Several major leases were renegotiated during the year to become effective November 1, 1957. These new leases should materially increase the income derived therefrom.

Collection of rentals has become increasingly difficult because of tight money and other economical reasons.

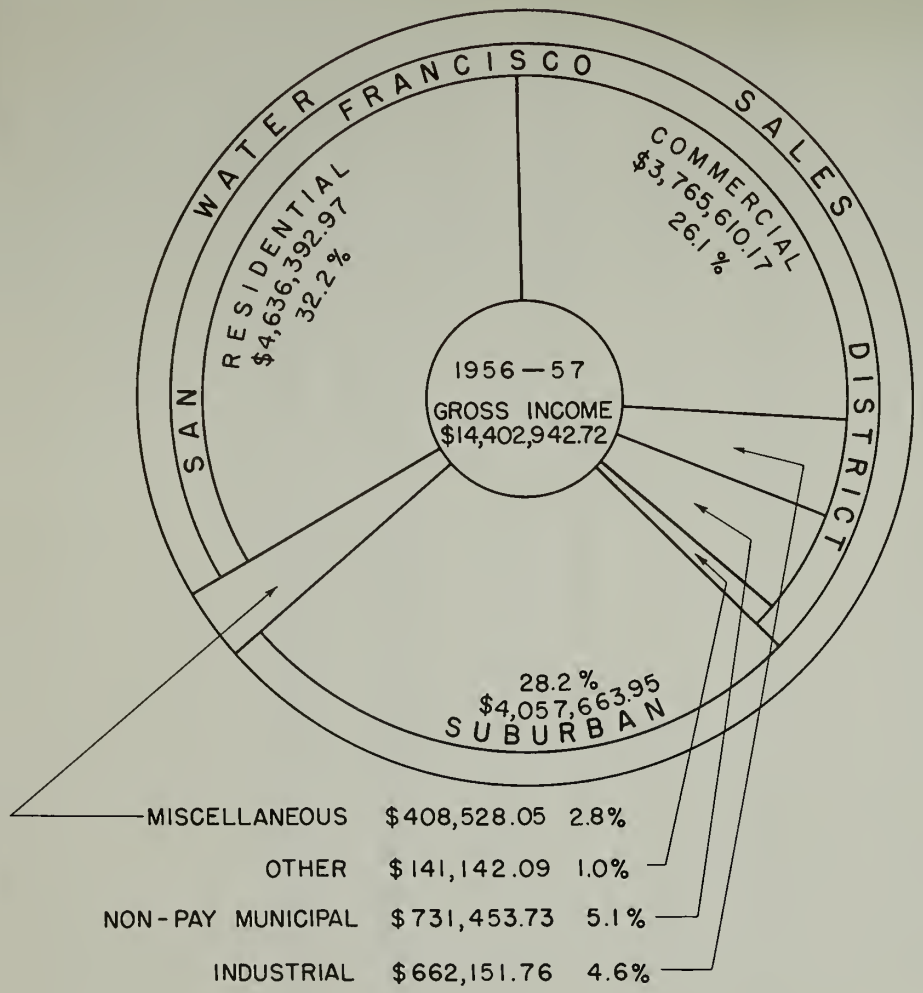
All leases now call for Public Liability and Property Damage insurance in order that the City may be properly protected from liability in these lease operations.

WALNUT CROP AND VALUE DURING CITY OWNERSHIP

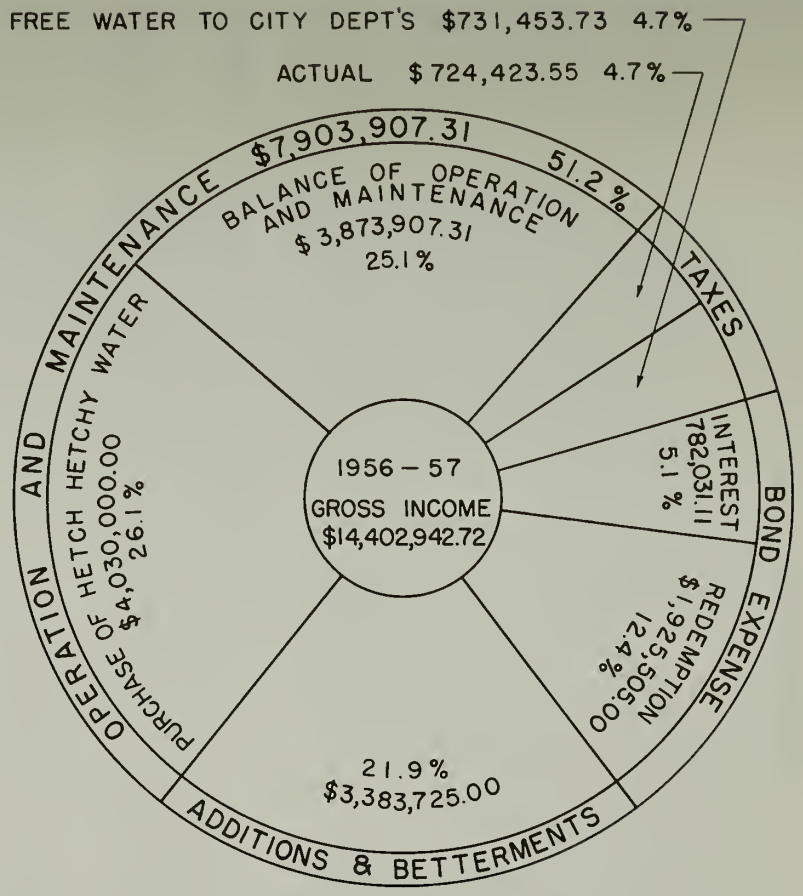
	Total Yield Pounds	Gross Value	Net Cash Received	Association Charges % of Gross *	Packing House Charges per lb.
1930	110,361.	$23,905.44	$20,024.55	16.23	$ .0138
1931	91,570.	13,778.73	12,272.73	10.93	.0091
1932	206,795.	28,994.25	20,391.18	29.67	.0070
1933	153,080.	23,635.21	17,905.45	24.24	.0073
1934	136,672.	18,039.52	13,236.00	26.63	.0059
1935	209,095.	27,359.11	22,719.87	16.96	.0045
1936	187,605.	27,865.13	24,947.57	10.47	.0046
1937	179,954.	23,808.71	21,102.05	11.37	.0042
1938	258,934.	36,812.05	31,801.16	13.61	.0090
1939	153,770.	12,747.35	11,366.74	10.83	.0124
1940	90,148.	13,570.25	11,671.08	14.00	.0100
1941	239,062.	37,182.09	29,807.07	19.83	.0088
1942	254,594.	45,744.85	44,000.73	3.81	.0068
1943	188,590.	49,552.64	48,373.84	2.38	.0082
1944	107,831.	29,487.66	26,901.72	8.77	.0138
1945	214,919.	62,893.03	58,474.64	7.03	.0126
*1946	240,883.	73,017.57	73,017.57	0	0
*1947	81,167.	16,700.11	16,700.11	0	0
*1948	196,529.	39,896.52	39,896.52	0	0
*1949	153,434.	25,546.71	25,546.71	0	0
1950	135,377.	31,879.62	26,983.69	15.36	.0361
1951	184,497.	50,394.52	41,728.69	17.19	.0470
1952	232,716.	67,279.72	50,687.67	24.66	.0713
1953	152,766.	47,826.07	36,410.41	23.87	.0747
1954	197,848.	50,004.74	35,796.44	28.41	.0718
1955	127,758.	44,523.64	36,125.31	18.74	.0653
1956	167,881.	67,425.47	46,511.84	31.02	.1246
Prior Years Adjust		3,431.54	3,431.54		
	4,653,836	993,502.25	848,086.98		

*Includes cost of surplus control, operating reserve and revolving fund in addition to actual Association charges for marketing expense.

**Sold under competitive bids.



SOURCE OF INCOME
FISCAL YEAR ENDING JUNE 30, 1957



* NOTE: — EXPENDITURES EXCEEDED GROSS INCOME BY $1,048,102.98

DISPOSITION OF GROSS INCOME
FISCAL YEAR ENDING JUNE 30, 1957

X-1124A

ACCOUNTING AND AUDITING

The accounts of the San Francisco Water Department are maintained strictly in accordance with the requirements of the State Public Utilities Commission and Section 64 of the Charter, and the accounts of the Department have been so coordinated with the Controller's system that no encumbrance or expenditure against budget estimates can be incurred without prior certification from the Controller that funds are available. As provided in Ordinance 9.0621, an annual audit of the Department is made as of June 30, by a firm of certified public accountants. The accountant's report is not available at the time the Department's financial statement goes to press, hence there may be minor differences between the two reports due to reclassifications made by the accountants.

Comments on Financial Statements:

An analysis of the disposition of Earned Surplus, together with additions thereto and deductions therefrom is shown in the body of these comments.

The following financial statements and cost reports are presented:

Balance Sheet June 30, 1957 (Exhibit A).

Income Statement for the years ending June 30, 1956 and June 30, 1957 (Exhibit B).

Surplus Account June 1957 (Exhibits C and D).

Comparative Statement of Operating Expenses for fiscal year 1955-56 and 1956-57 (Exhibit E).

Operating Expenses for past four fiscal years (Schedules Nos. 1, 2, 3 and 4).

Additions, Betterments and Replacements for fiscal year 1956-57 (Schedule No. 5).

Agricultural Division, Receipts and Expenses for past five years (Schedule No. 6).

Operating Expenses, City Distribution Division for fiscal year 1956-57 (Schedule Nos. 11 and 12).

Operating Expenses, outside of San Francisco for fiscal year 1956-57 (Schedules Nos. 13 and 14).

Operating Expenses show a net increase of $169,189.87 as shown by the following tabulation:

	Increase	Decrease
Source of Supply	$	$ 29,953.13
Standby Charge and Purchase of water		
Pumping Expenses		31,178.60
Purification Expenses	34,125.17	
Transmission and Distribution Expenses	148,574.33	
Commercial Div'n Expenses	17,707.61	
Administrative & General	68,987.56	
Taxes Actual	21,386.15	
Provision for Doubtful Accts.	742.63	
Provision for Depreciation		59,692.97
Municipal Taxes, Comparison*		8,584.49
Revision for Contingent Refunds	7,075.61	
Net Increase		169,189.87
	$298,599.06	$298,599.06

*Water delivered to Municipal Departments offset by taxes.

SAN FRANCISCO WATER DEPARTMENT

DISPOSITION OF SURPLUS

	TO JUNE 30, 1956	YEAR 1956-1957	TO JUNE 30, 1957
SURPLUS			
CONTRIBUTED TO:			
GENERAL FUND	$15,992,457.24		$15,992,457.24
HETCH HETCHY PROJECT	4,510,127.21		4,510,127.21
HETCH HETCHY POWER	1,228.59		1,228.59
APPROPRIATED FOR:			
BOND REDEMPTION - SPRING VALLEY	$26,000,000.00	$ 1,000,000.00	$27,000,000.00
" " - 1933 WATER DISTRIBUTION	9,844,594.33		9,844,594.33
1947 HETCH HETCHY BOND REDEMPTION	4,116,037.74	409,525.26	4,525,563.00
ADDITIONS AND BETTERMENTS	26,111,412.79	3,378,725.00	29,490,137.79
ADDITIONS & BETTERMENTS, LAKE MERCED PROJECT	1,250,000.00		1,250,000.00
PURCHASE OF LAND	54,858.50		54,858.50
OTHER PURCHASES	100,429.29		100,429.29
FROM SURPLUS	-5,620,513.56	3,772,605.57	-1,847,907.99
	$82,360,632.13	$ 8,560,855.83	$90,921,487.96
ADD:			
INITIAL EXCESS EARNINGS - SPRING VALLEY WATER COMPANY	$ 4,152,652.24		$ 4,152,652.24
VALUATION MUNICIPAL WATER WORKS	100,000.00		100,000.00
GRANTS EARNED ON FEDERAL PROJECTS	2,358,987.60		2,358,987.60
CONTRIBUTIONS IN AID OF CONSTRUCTION	165,000.00		165,000.00
SURPLUS MATERIAL AND EQUIPMENT	373,041.59		373,041.59
LAND SALES - PROFIT	1,386,174.29		1,386,174.29
BOND PREMIUM	840,660.86		840,660.86
PALO ALTO PIPE LINE	360,271.90		360,271.90
MISCELLANEOUS ADDITIONS	398,027.42		398,027.42
BAY BRIDGE PUMP AND SUPPLY LINE	219,601.79		219,601.79
1947 HETCH HETCHY BOND FUND STRUCTURES	12,713,832.82	-12,713,832.82	-
REVALUATION OF WATER DEPARTMENT PROPERTIES	765,951.12		765,951.12
	$23,834,201.63	$-12,713,832.82	$11,120,368.81
DEDUCT:			
CONTRIBUTION BY HETCH HETCHY FOR SUTRO RESERVOIR	$ 409,471.41		$ 409,471.41
CONTRIBUTION TO GENERAL FUND	15,992,457.24		15,992,457.24
DEFICIT COUNTY LINE WATER WORKS	19,189.15		19,189.15
PAYMENT FOR PURPOSE OF ENABLING CITY TO TAKE OVER PROPERTIES IN ADVANCE	745,274.31		745,274.31
LANDS CONTRIBUTED TO CITY	172,564.67		172,564.67
CONTRIBUTION TO HETCH HETCHY WATER SUPPLY	4,430,005.85		4,430,005.85
MISCELLANEOUS DEDUCTIONS FROM SURPLUS	275,549.70		275,549.70
DEPRECIATION DUE TO REVALUATION	9,059,955.03		9,059,955.03
DEPRECIATION NOT FUNDED (ACCRUED 3-3-30)	14,669,843.97	957,756.00	15,627,599.97
	$45,774,311.33	$957,756.00	$46,732,067.33
	$60,420,522.43	$-5,110,732.99	$55,309,789.44

EXIBIT "A"
SAN FRANCISCO WATER DEPARTMENT
BALANCE SHEET
JUNE 30, 1957

ASSETS

FIXED CAPITAL:		
IN SERVICE	$101,842,875.42	
NOT IN SERVICE	749,005.36	
	$102,591,880.78	
LESS PROV'N FOR DEPRECIATION	34,603,397.92	
	$ 67,988,482.86	
CONSTRUCTION WORK IN PROGRESS	2,859,737.87	$ 70,848,220.73
CASH:		
TREASURER'S BALANCE, SCHEDULE ANNEXED	$ 6,659,791.51	
REVOLVING FUND	30,000.00	
OTHER CASH	- 0 -	6,689,791.51
ACCOUNTS RECEIVABLE:		
CONSUMERS' ACCOUNTS	$ 1,078,170.39	
LESS RESERVE FOR LOSSES	99,818.07	
	$ 978,352.32	
OTHER ACCOUNTS RECEIVABLE:		
REVENUE	49,970.18	
NON-REVENUE	307.41	1,028,629.91
INTERFUND ACCOUNTS:		
SCHEDULE ANNEXED:		
PUBLIC SERVICE ENTERPRISES	$ 1,603.06	1,603.06
DEFERRED CHARGES:		
OPERATING FUND EXPENDITURES UNBILLED	$ 74,615.39	
PREPAID TAXES	- 0 -	
HETCH HETCHY PROJECT		
DEPOSIT FOR ORDERS OF POSSESSION	25,925.50	
MATERIAL AND SUPPLIES	530,712.31	
MISCEL. JOBBING & SALES A/C, ETC.	17,221.04	648,474.24
TOTAL ASSETS		$ 79,216,719.45

LIABILITIES

BONDED DEBT:		
1947 HETCH HETCHY BOND		$ 7,974,437.00
SPRING VALLEY WATER BONDS, 1928	$13,000,000.00	
MATURED, NOT PRESENTED FOR PAYMENT: SPRING VALLEY 1928	1,014,000.00	14,014,000.00
BOND INTEREST PAYABLE:		
ACCRUED, NOT DUE: SPRING VALLEY WATER BONDS, 1928	$ 315,000.00	
MATURED, NOT PRESENTED FOR PAYMENT: SPRING VALLEY 1928	8,482.50	323,482.50
ACCOUNTS PAYABLE:		
WARRANTS OUTSTANDING, SCHEDULE ANNEXED	$ 269,394.16	
CONSUMERS' DEPOSITS & ADVANCES	188,799.98	
GENERAL CREDITORS	327,233.72	
ACCRUED PAYROLL	- 0 -	
PAYROLL DEDUCTIONS PAYABLE	- 0 -	785,427.86
INTERFUND ACCOUNTS:		
SCHEDULE ANNEXED:		
PUBLIC SERVICE ENTERPRISES	$ 73,603.52	
GENERAL CITY AND COUNTY	117,909.35	191,512.87
DEFERRED CREDITS:		
RESERVE FOR CONTINGENCY REFUNDS - FUNDED	$ 225,776.78	
RESERVE FOR CONTINGENCY REFUNDS - UNFUNDED	45,975.21	
RESERVE FOR COMPENSATION INSURANCE	143,822.94	
OTHER DEFERRED CREDITS	202,494.85	618,069.78
SURPLUS, SCHEDULE ANNEXED		55,309,789.44
TOTAL LIABILITIES		$79,216,719.45

EXHIBIT "B"

SAN FRANCISCO WATER DEPARTMENT

INCOME ACCOUNT

TWELVE MONTHS ENDING JUNE 30, 1957 AND 1956

	TWELVE MONTHS ENDING JUNE 30,		INCREASE OR - DECREASE	COMULATION FROM MARCH 3, 1930 TO JUNE 30, 1957
SALE OF WATER:	1957	1956		
SAN FRANCISCO	$ 9,141,812.25	$ 9,132,838.31	$ 8,973.94	$201,527,338.33
OUTSIDE SAN FRANCISCO	4,057,978.10	3,853,926.93	204,051.17	35,874,660.97
MUNICIPAL DEPARTMENTS - ACTUAL	63,170.59	61,569.09	1,601.50	1,604,859.43
MUNICIPAL DEPARTMENTS - COMPARISON*	731,453.73	740,038.22	- 8,584.49	14,198,100.12
	$13,994,414.67	$13,788,372.55	$206,042.12	$253,204,958.85
OTHER EXPENSES:				
SOURCE OF WATER SUPPLY	$ 445,631.01	$ 475,584.14	$-29,953.13	$ 7,991,956.32
STANDBY CHARGE & PURCHASES OF WATER	4,030,000.00	4,030,000.00	- 0 -	44,916,061.92
PUMPING	335,983.70	367,162.30	-31,178.60	7,767,207.68
PURIFICATION	208,825.07	174,699.90	34,125.17	2,341,406.45
TRANSMISSION AND DISTRIBUTION	1,113,543.81	964,969.48	148,574.33	13,696,773.29
COMMERCIAL DIVISION	630,632.99	612,925.38	17,707.61	12,103,009.97
ADMINISTRATION AND GENERAL	799,753.51	730,765.95	68,987.56	10,702,943.72
TAXES - ACTUAL	724,423.55	703,037.40	21,386.15	9,992,612.23
PROVISION FOR DOUBTFUL ACCOUNTS	8,847.97	8,105.34	742.63	276,082.10
PROVISION FOR DEPRECIATION	1,130,856.00	1,190,548.97	-59,692.97	28,388,844.51
MUNICIPAL TAXES - COMPARISON*	731,453.73	740,038.22	- 8,584.49	14,214,338.84
RESERVE FOR REFUNDS	60,358.15	53,282.54	7,075.61	273,372.68
	$10,220,309.49	$10,051,119.62	$169,189.87	$152,664,609.71
PROFIT FROM OPERATIONS:	$ 3,774,105.18	$ 3,737,252.93	$ 36,852.25	$100,540,349.14
OTHER INCOME:				
RENTALS, INCLUDING CROP SHARES	$ 271,878.34	$ 245,129.87	$ 26,748.47	$ 3,290,076.37
INTEREST EARNED	23,154.60	18,457.35	4,697.25	556,149.33
SALE OF WALNUTS	67,425.47	44,523.64	22,901.83	993,302.25
MISCELLANEOUS	46,069.64	71,511.96	-25,442.32	1,185,212.10
	$ 408,528.05	$ 379,622.82	$ 28,905.23	$ 6,024,740.05
OTHER EXPENSES:				
BOND INTEREST	$ 782,031.11	$ 838,324.85	$-56,293.74	$ 39,005,933.43
AGRICULTURAL DIVISION	15,113.44	21,416.05	- 6,302.61	443,255.08
WALNUT ORCHARD EXPENSES	62,623.35	38,402.11	24,221.24	695,676.30
MISCELLANEOUS	19,467.31	11,184.60	8,282.71	144,912.24
	$ 879,235.21	$ 909,327.61	$-30,092.40	$ 40,289,777.05
NET INCOME	$ 3,303,398.02	$ 3,207,548.14	$ 95,849.88	$ 66,275,312.14

* WATER SERVICE TO MUNICIPAL DEPARTMENTS OFFSET BY MUNICIPAL TAXES.

EXHIBIT "C"

SAN FRANCISCO WATER DEPARTMENT

SURPLUS ACCOUNT

FOR TWELVE MONTHS ENDING JUNE 30, 1957

SURPLUS, JUNE 30, 1956	$60,420,522.43	
ADD:		
NET INCOME FOR TWELVE MONTHS ENDING JUNE 30, 1957	3,303,398.02	$63,723,920.45
DEDUCT:		
ADJUSTMENT OF SURPLUS DUE TO CONSOLIDATION OF 1947 HETCH HETCHY BOND	$ 7,486,746.20	
CONTRIBUTION TO 1947 HETCH HETCHY WATER BOND FUND THROUGH 3/31/57	927,384.81	8,414,131.01
SURPLUS - JUNE 30, 1957		$55,309,789.44

EXHIBIT "D"

COMPOSITION OF SURPLUS - CONDENSED

JUNE 30, 1957

INITIAL SURPLUS - MARCH 3, 1930				
AMORTIZATION ON CONTRIBUTION (SPRING VALLEY)		$ 4,152,652.24		
VALUATION OF MUNICIPAL WATER WORKS		100,000.00		
		$ 4,252,652.24		
LESS: ADDITIONAL ALLOWANCE FOR DEPRECIATION MARCH 1, 1920 TO MARCH 3, 1930		2,327,916.67	$ 1,924,735.57	
ADDITIONS:				
NET PROFIT, MARCH 3, 1930 TO JUNE 30, 1957		$66,275,312.14		
MISCELLANEOUS AND YEAR TO YEAR ADJUSTMENTS		5,187,115.22		
CONTRIBUTION FROM HETCH HETCHY POWER DIVISION		409,471.41		
CONTRIBUTION FROM 1947 HETCH HETCHY WATER BOND		210,624.62	72,082,523.39	
GRANTS EARNED ON FEDERAL PUBLIC WORKS PROJECT			2,358,987.60	
YEAR TO YEAR - ADDITIONS TO SURPLUS - JUNE 30, 1957			1,669,481.49	$78,035,728.05
DEDUCTIONS:				
CONTRIBUTED TO GENERAL FUND			$15,992,457.24	
CONTRIBUTED TO HETCH HETCHY WATER SUPPLY			4,466,014.40	
LANDS CONTRIBUTED TO CITY AND COUNTY OF SAN FRANCISCO FOR STREETS AND BOULEVARDS			172,564.67	
EXCESS OF ADJUSTED BOOK VALUE OF PLANT APPRAISAL, DECEMBER 31, 1937	$1,990,474.91			
EXCESS OF ADJUSTED BOOK VALUE OF PLANT APPRAISAL, JUNE 30, 1953	188,291.42	$ 2,178,766.33		
LESS: ADJUSTED BOOK VALUE ON PLANT APPRAISAL JUNE 30, 1948		83,864.03	2,094,902.30	22,725,938.61
SURPLUS - JUNE 30, 1957				$55,309,789.44

PUBLIC UTILITIES COMMISSION
SAN FRANCISCO WATER DEPARTMENT

EXHIBIT "E"

COMPARATIVE STATEMENT OF OPERATING EXPENSES
FOR THE FISCAL YEARS ENDING JUNE 30, 1956 AND JUNE 30, 1957

	FISCAL YEAR ENDED JUNE 30 1956	1957
SOURCE OF WATER SUPPLY EXPENSES:		
SUPERINTENDENCE	$ 66,736.64	$ 61,515.99
OPERATING LABOR	85,381.32	87,695.75
OPERATING SUPPLIES AND EXPENSES	23,123.07	23,538.56
REPAIRS & MAINTENANCE - BUILDINGS, FIXTURES & GROUNDS	205,162.19	181,627.83
REPAIRS - SURFACE FACILITIES	95,180.92	91,252.88
	$475,584.14	$ 445,631.01
PUMPING EXPENSES:		
LABOR - PUMPING	$ 91,463.13	$ 67,458.37
FUEL FOR STEAM	56,876.01	25,041.04
POWER PURCHASED	196,199.09	225,293.75
LUBRICANTS	921.68	7.31
MISCELLANEOUS SUPPLIES AND EXPENSES	2,419.18	2,395.26
REPAIRS - PRIMARY PUMPING EQUIPMENT	5,898.30	7,535.90
REPAIRS - BOILERS AND EQUIPMENT	7.29	- 0 -
REPAIRS - MISCELLANEOUS EQUIPMENT	4,098.02	1,391.03
REPAIRS - BUILDING FIXTURES AND GROUNDS	9,279.60	6,861.04
	$367,162.30	$ 335,983.70
PURIFICATION EXPENSES:		
SUPERINTENDENCE AND LABOR	$ 55,677.01	$ 61,732.65
SUPPLIES AND EXPENSE	113,088.55	144,497.78
REPAIRS - PLANT, STRUCTURES AND EQUIPMENT	5,934.34	2,594.64
	$174,699.90	$ 208,825.07
TRANSMISSION AND DISTRIBUTION EXPENSES:		
SUPERINTENDENCE	$ 84,021.83	$ 92,355.72
PATROLLING STORAGE FACILITIES	25,244.58	30,799.48
METERS AND FITTINGS DEPARTMENT	152,310.27	164,936.97
STREET DEPARTMENT	39,388.72	33,790.25
CONSUMERS' PREMISES EXPENSES	65,342.30	68,759.35
MISCELLANEOUS SUPPLIES AND EXPENSES	35,964.43	46,055.73
REPAIRS - TRANSMISSION MAINS AND CANALS	52,625.39	87,928.48
REPAIRS - RESERVOIRS, TANKS AND STANDPIPES	12,139.66	4,546.30
REPAIRS - DISTRIBUTION MAINS AND CANALS	217,127.32	275,866.14
REPAIRS - SERVICE CONNECTIONS	196,573.87	228,643.01
REPAIRS - DISTRIBUTION BUILDINGS AND GROUNDS	49,113.19	56,296.49
REPAIRS - DISTRIBUTION EQUIPMENT	13,870.18	17,133.01
RECONSTRUCT AND RELOCATE PIPE LINES AND SERVICES	21,247.74	6,432.88
	$964,969.48	$1,113,543.81

PUBLIC UTILITIES COMMISSION
SAN FRANCISCO WATER DEPARTMENT

EXHIBIT "E"

- Continued -

	FISCAL YEAR ENDED JUNE 30	
	1956	1957
COMMERCIAL EXPENSES:		
COLLECTIONS	$ 146,102.57	$ 147,334.93
READING METERS	72,455.24	73,474.98
BOOKKEEPING DEPARTMENT	202,825.50	206,710.85
GENERAL	91,476.23	98,552.04
INSPECTION AND SERVICE	74,214.17	80,043.89
SHIPPING	25,851.67	24,516.30
	$ 612,925.38	$ 630,632.99
ADMINISTRATIVE AND GENERAL EXPENSE:		
SALARIES - GENERAL OFFICERS	$ 36,606.15	$ 39,775.67
SALARIES - GENERAL OFFICE CLERKS	75,603.98	79,368.98
MISCELLANEOUS SUPPLIES AND EXPENSES	3,250.90	3,010.68
INJURIES AND DAMAGES	14,472.80	36,687.91
RETIREMENT SYSTEM CONTRIBUTIONS	250,061.50	254,494.13
MASON STREET BUILDING EXPENSE	45,931.13	48,078.19
TELEPHONE SERVICE	39,329.78	38,668.89
GUEST COTTAGES AND REST ROOM		3.40
GENERAL ENGINEERING	93,922.38	103,501.58
HYDROGRAPHY	888.82	1,591.12
MISCELLANEOUS	18,424.94	-21,967.40
COMPENSATION INSURANCE	20,811.61	16,426.85
OTHER INSURANCE	12,391.57	12,905.01
REPAIRS - MASON ST. BUILDING	4,477.88	36,057.45
REPAIRS - TELEPHONE SYSTEM	12,185.62	16,014.03
REPAIR EXTRAORDINARY		23,499.32
PROFESSIONAL SERVICES	4,000.00	13,921.00
PUBLIC UTILITY COMMISSION EXPENSE	98,406.89	97,716.70
PROPERTY TAXES (OUTSIDE OF SAN FRANCISCO)	703,037.40	724,423.55
	$1,433,803.35	$1,524,177.06

PUBLIC UTILITIES COMMISSION
SAN FRANCISCO WATER DEPARTMENT

OPERATING EXPENSES
SCHEDULE NO. 1

RESERVOIRS AND SOURCES:	1953-1954	1954-1955	1955-1956	1956-1957
INSIDE OF SAN FRANCISCO:				
Central Pump Supply	$	$	$	$ -80.24
Lake Merced	14,370.48	5,841.09	7,036.17	4,925.32
	$ 14,370.48	$ 5,841.09	$ 7,036.17	$ 4,845.08
OUTSIDE OF SAN FRANCISCO:				
SURFACE SOURCES:				
San Andres Reservoir	$ 24,367.47	$ 24,125.65	$ 33,716.18	$31,996.03
Crystal Springs Reservoir	74,190.08	77,194.86	72,929.71	76,167.58
Pilarcitos Reservoir	37,114.28	32,332.60	50,694.70	30,496.77
Calaveras Reservoir	21,997.29	20,140.73	25,100.85	26,520.57
	$157,669.12	$ 153,793.84	$182,441.44	$165,180.95
GROUND SOURCES:				
Sunol Filter Beds	$ 16,426.83	$ 12,069.86	$ 15,386.93	$ 15,501.97
Pleasanton Wells	1,221.71	1,185.71	1,519.50	1,801.04
	$ 17,648.54	$ 13,255.57	$ 16,906.43	$ 17,303.01
SUPPLY LINES AND AQUEDUCTS:				
Bay Division Pipe Line No. 3	$	$	$ 4,221.03	$ 7,665.44
Bay Division Pipe Lines Nos. 1 and 2 (Peninsula Division)	53,057.42	112,738.82	54,991.83	45,614.59
Stone Dam Aqueduct	6,841.02	4,473.95	8,873.23	6,358.34
Niles Irvington Pipe Line	1,671.70	2,061.82	2,314.16	1,151.70
Bay Division Pipe Lines Nos. 1 and 2 (Alameda Division) No. 3			7,941.20	6,135.90
				3,727.95
Other Supply Lines and Aqueducts (Penin. Div.)	7,625.14	5,624.34	10,917.78	14,461.12
Other Supply Lines (Alameda Division)			15,901.72	15,703.07
Cathodic Protection			2,195.17	5,480.14
	$ 69,195.28	$124,898.93	$107,356.12	$106,298.25
Alameda System - General Expenses	$ 34,980.70	$ 38,596.00	$ 39,298.48	$ 39,357.75
Peninsula System - General Expenses	99,737.32	113,980.45	121,495.87	112,645.97
	$134,718.02	$152,576.45	$160,794.35	$152,003.72
TOTAL SOURCE OF SUPPLY EXPENSE	$393,601.44	$450,365.88	$474,534.51	$445,631.01

PUBLIC UTILITIES COMMISSION
SAN FRANCISCO WATER DEPARTMENT

SCHEDULE NO. 2
OPERATING EXPENSES

PUMP STATIONS	1953-1954	1954-1955	1955-1956	1956-1957
INSIDE OF SAN FRANCISCO:				
STEAM PLANTS:				
Central	$147,366.25	$142,085.05	$103,370.01	$ 29,710.59
City				
Clarendon Heights	565.83			
	$147,932.08	$142,085.05	$103,370.01	$ 29,710.59
ELECTRIC PUMPS:				
Alemany	$ 44,072.46	$ 45,141.93	$ 9,659.34	$ 185.86
Bay Bridge Pump - Treasure Island	8,413.82	8,986.10	7,623.37	8,436.60
Bernal Heights	484.46	446.71	815.17	186.64
Crocker Amazon			2,754.40	3,367.72
Fairview	532.32	798.52	492.34	578.37
Forest Hill	9,477.37	10,348.23	9,947.55	10,785.45
Francisco Street	3,050.19	2,788.00	1,428.22	703.08
Lake Honda Booster	259.88	407.55	645.87	933.38
Lake Merced	43.26	27,000.20	83,466.26	121,991.72
Lincoln Park	841.95	658.04	730.24	821.17
Lone Mountain			209.20	509.15
McLaren			7.14	989.82
Mount Davidson	1,051.44	861.22	1,096.36	1,170.75
Newcomb Avenue	4,498.89	4,701.11	4,884.18	5,086.50
Olmstead and University	765.10	808.76	666.64	671.36
Palo Alto	465.53	194.04	524.05	386.19
Potrero Heights	504.64	1,126.43	545.82	456.35
Summit		97.03	3,712.96	3,322.89
Sunset Booster	400.30			7.04
Sunset Source	1.08			
Twin Peaks	927.82	1,170.02	1,216.13	1,464.23
General	1,014.98	1,436.09	612.31	1,506.39
Candlestick Cove				182.26
Leland Avenue				6.36
	$ 76,805.49	$106,969.98	$131,037.55	$163,749.28
TOTAL INSIDE OF SAN FRANCISCO	$224,737.57	$249,055.03	$234,407.56	$193,459.87
OUTSIDE OF SAN FRANCISCO:				
Baden	$ 1,797.78	$ 2,632.42	$ 2,839.95	$ 1,621.05
Crystal Springs Pump	137,774.31	142,046.96	113,829.12	125,492.91
Bay Division Pump	480.89	594.25	760.45	627.60
Pleasanton Pump	1,468.10	1,678.32	546.69	2,376.53
Pleasanton Township Water District	2,491.49	3,300.85	4,793.55	1,534.36
Irvington Pump	10,884.09	5,947.76	9,984.98	10,871.38
TOTAL OUTSIDE OF SAN FRANCISCO	$154,896.66	$156,200.56	$132,754.74	$142,523.83
GRAND TOTAL	$379,634.23	$405,255.59	$367,162.30	$335,983.70

PUBLIC UTILITIES COMMISSION
SAN FRANCISCO WATER DEPARTMENT

SCHEDULE NO. 3
OPERATING EXPENSES

PURIFICATION EXPENSES	1953-1954	1954-1955	1955-1956	1956-1957
INSIDE OF SAN FRANCISCO:	$			
Alemany Fluoridation	2,412.21	$ 2,003.43	$	$
College Hill	664.21	474.97	666.51	1,670.22
Francisco Street	66.05	54.08	23.90	
Lake Honda	9.85	-	-	1,013.77
Lake Merced	233.35	94.55	24.67	36.74
Lombard Street	42.96	42.96	98.22	100.85
Sunset	451.84	222.15	337.44	338.79
Sutro	72.04	.88	182.17	
University Mound	2,056.55	1,158.52	1,476.30	1,756.50
TOTAL INSIDE OF SAN FRANCISCO	$ 6,009.06	$ 4,051.54	$ 2,809.21	$ 4,916.87
OUTSIDE OF SAN FRANCISCO:				
Crystal Springs Fluoridation Plant	$	$	$ 16,760.39	$29,685.58
North San Andres Fluoridation Plant	14,466.76	10,329.64	21,124.54	14,814.80
Rock River Lime Plant	15,282.44	16,005.34	13,242.46	17,390.74
San Andres Reservoir	7,972.84	12,229.71	10,661.89	13,274.41
Crystal Springs Reservoir	8,161.94	8,954.35	12,018.42	13,731.71
Calaveras Reservoir	7,783.58	7,972.74	7,932.27	21,852.88
Sunol Purification System	453.76	1,106.78	880.82	150.88
Other Outside Stations	2,959.46	1,514.04	4,425.87	3,377.47
Coast Range Division, H. H. W. S.	25,854.22	28,453.81	27,749.79	29,745.57
Millbrae Laboratory	55,589.50	54,935.54	56,364.23	53,481.37
Alum Treatment			730.01	6,402.79
TOTAL OUTSIDE OF SAN FRANCISCO	$138,524.50	$141,501.95	$171,890.69	$203,908.20
TOTAL PURIFICATION EXPENSES	$144,533.56	$145,553.49	$174,699.90	$208,825.07

PUBLIC UTILITIES COMMISSION
SAN FRANCISCO WATER DEPARTMENT

SCHEDULE NO. 4
OPERATING EXPENSES

TRANSMISSION AND DISTRIBUTION	1953-1954	1954-1955	1955-1956	1956-1957
INSIDE OF SAN FRANCISCO:				
City Transmission Lines	$ 10,681.13	$ 18,757.08	$ 1,024.82	$ 1,179.74
Reconstruct and Relocate Pipe Lines	46,382.53	16,835.90	21,247.74	6,432.88
" " " Water Services		117,626.99		
City Distribution Reservoirs	91,376.93	68,566.41	73,216.95	71,931.74
Meter Expenses	163,556.72	128,442.89	133,702.27	136,237.35
Street Department Expenses	34,886.93	38,954.49	39,388.72	33,790.25
Main Repairs	175,403.46	174,642.70	217,122.98	275,866.14
Service Connection Repairs	172,827.04	163,395.18	196,506.82	228,643.01
Repairs to Buildings and Equipment	10,261.85	11,498.93	13,870.18	17,133.01
Operation of Corporation Yard	26,924.56	23,917.76	33,332.44	44,445.36
Consumers' Premises Exponses	59,541.61	62,647.91	65,342.30	68,759.35
Superintendence	96,369.09	85,581.04	84,021.83	92,355.72
TOTAL INSIDE SAN FRANCISCO	$888,211.85	$910,867.28	$878,777.05	$976,774.55
OUTSIDE OF SAN FRANCISCO:				
Alameda Supply Line - Alameda Division	$ 868.44	$ 223.05	$ 1,853.85	$ 2,785.18
Alameda Transmission Line	4,152.70	12,816.97	7,698.62	22,158.05
Sunset Transmission Line	3,396.80	2,003.00	10,505.31	13,225.13
Crystal Springs PumpAqueduct	13,989.72	16,889.84	13,864.83	16,325.05
New Crystal Springs Transmission Line	7,150.72	11,320.12	5,530.03	7,379.85
Old Crystal Springs Transmission Line	9,482.43	14,310.76	6,450.10	12,931.28
San Andres Transmission Line #1 to College Hill	5,249.52	8,752.91	3,154.48	7,570.21
San Andres Transmission Line #2 to Sunset	5,160.57	3,621.10	8,968.33	8,331.63
San Andres Transmission Line #3 to Merced Manor	3,191.51	2,967.37	2,877.04	9,786.97
Palo Alto Pipe Line	283.30	1,164.20	998.64	1,580.07
Niles Regulating Reservoir	6,080.15	6,114.72	5,562.46	5,406.35
Pleasanton Transmission Line	6.15	37.38	49.35	589.87
Meter Expense, Peninsula Division	17,776.34	18,903.09	18,217.99	28,652.67
Meter Expense, Alameda Division	133.93	528.02	461.40	46.95
TOTAL OUTSIDE OF SAN FRANCISCO	$76,922.28	$99,652.53	$ 86,192.43	$136,769.26
TOTAL TRANSMISSION AND DISTRIBUTION EXPENSES	$965,134.13	$1,010,519.81	$964,969.48	$1,113,543.81

SCHEDULE NO. 5
SAN FRANCISCO WATER DEPARTMENT
ADDITIONS, BETTERMENTS AND REPLACEMENT
JUNE 30, 1957

ACCOUNT NO.	CONTRACT NO.	NAME	RETIREMENTS	ADDITIONS	OFFICE	FIELD	FORCE ACCOUNT	CONTRACTS	MATERIAL AND SUPPLIES	CONTRACTUAL SERVICES	EQUIPMENT	MISCELLANEOUS
1015		LANDED CAPITAL	$ 27,508.41	$ 87,740.90	$	$	$	$	$	$ 50,874.94	$	$ 36,865.96
1020		BUILDINGS, STRUCTURES AND GROUNDS										
	738	ELECTRICAL ALTERATIONS AT MILLBRAE		3,067.45				3,067.45				
	779	SAN ANDRES CREEK ALUM TREATMENT PROJECT		29,197.53	2,763.50	4,624.59		18,750.96	1,421.42		1,637.06	
	783	REPLACE CHLORINE BUILDING AT NORTH SAN ANDRES OUTLET		30,250.98	220.69	538.60		28,050.89	192.80		1,248.00	
		RECLASSIFY SUTRO PUMPS ENGINEERING PRELIMINARY COSTS PRIOR TO JULY 1, 1955 TO TRANSMISSION AND DISTRIBUTION		1,327.85		-1,327.85						
		REPLACE WATER TANK AT CALAVERAS COTTAGES		448.62					448.62			
		FURNISH AND INSTALL WATER HEATER AT MILLBRAE		78.83							78.83	
		INSTALL BUTANE FURNACE AT MILLBRAE		293.00							293.00	
		INSTALL GLASS DOOR IN LOBBY AND REMODEL ENTRANCE DOORS - 425 MASON STREET		818.00				818.00				
			$	$ 62,826.56	$ 2,984.19	$ 3,835.34	$	$ 50,687.30	$ 2,062.84	$	$ 3,256.89	$
1025		SOURCE OF SUPPLY										
	776	RECONDITIONING BAY DIVISION PIPELINE #1		136,419.49	410.04	4,257.92	290.94	130,992.20	166.95		301.44	
1030		PUMPING STATION EQUIPMENT										
		BAY BRIDGE PUMPS		924.03							924.03	
		CRYSTAL SPRINGS PUMP STATION		16,599.44							16,599.44	
		OTHER		214.24							214.24	
			$	$ 17,737.71	$	$	$	$	$	$	$ 17,737.71	$
1035		PURIFICATION										
		VARIOUS ITEMS OF EQUIPMENT		2,599.24							2,599.24	
1040		TRANSMISSION AND DISTRIBUTION										
		CAST IRON MAINS UNDER $2,000.00		57,404.41			40,937.10		16,467.31			
		CAST IRON MAINS OVER $2,000.00	65,427.41	253,753.32			33,937.54	112,433.27	107,382.51			METERS
		INSTALL SERVICES IN SAN FRANCISCO	23,012.60	251,676.31			154,843.99	40,175.96	56,656.86			
		FURNISH AND INSTALL METERS IN SAN FRANCISCO	134,706.08	222,914.11			21,533.37		4,836.70			196,544.04
		CUT IN GATE VALVES		25,090.91			16,918.90		8,172.01			
		CLARENDON & PRESIDIO HEIGHTS TANKS SOLD	31,781.00									
		MAINLINE METERS - SUMMIT PUMP STATION		5,000.32							5,000.32	
	672	RELOCATE CRYSTAL SPRINGS 60" AND 44" P/L - BYPASS GUADALUPE TRESTLE	101,691.06	498,042.71	13,220.19	37,334.88	26,457.72	287,829.36	133,200.56			
	780	LAY 20" AND 24" STEEL MAINS IN CORBETT AVENUE AND PORTOLA DRIVE		46,094.81			1,939.63	24,486.96	19,668.22			
		LAY 6" CAST IRON MAIN IN SOUTH SIDE OF MARKET STREET BETWEEN HATTIE AND DANVERS STREETS		3,213.05			1,253.27		1,959.78			
		RECLASSIFY SUTRO PUMPS ENGINEERING PRELIMINARY COSTS		1,327.85		1,327.85						
			$356,618.15	$1,364,518.30	$13,220.19	$38,662.73	$297,821.52	$464,925.55	$348,343.95	$	$ 5,000.32	$196,544.04
1041		TRANSMISSION AND DISTRIBUTION										
		FURNISH AND INSTALL METERS OUTSIDE SAN FRANCISCO	11,254.57	24,403.13			46.44		1,491.36			22,865.38
		INSTALL SERVICES OUTSIDE SAN FRANCISCO		33,370.56			19,608.67		13,761.89			
		CONSTRUCTION OF SUNOL SUPPLY LINE		41,429.93	3,345.26	4,350.17			630.78	33,103.72		
			$ 11,254.57	$ 99,203.67	$ 3,345.26	$ 4,350.17	$ 19,655.11	$	$ 15,884.03	$33,103.72	$	$ 22,865.38
1045		GENERAL EQUIPMENT	2,968.07	26,225.91							26,225.91	
1046		AUTOMOTIVE EQUIPMENT	33,592.69	59,257.00							59,257.00	
1048		NON-OPERATING CAPITAL	215.24	7,663.29						2,100.00	5,568.29	
			$432,157.13	$1,864,197.07	$19,959.68	$51,106.16	$317,767.57	$646,605.05	$366,457.77	$86,078.66	$119,946.80	$256,275.38

SAN FRANCISCO WATER DEPARTMENT
PUBLIC UTILITIES COMMISSION

SCHEDULE NO. 6
AGRICULTURAL AND LAND DIVISION
RECEIPTS AND EXPENSES

	1952-53	1953-54	1954-55	1955-56	1956-57
RECEIPTS, AGRICULTURAL:					
RENTALS - CATTLE LEASES	$108,989.53	$ 94,361.98	$100,969.12	$ 96,547.03	$ 95,915.82
RENTALS - FLAT RATES AND SPECIALTY	34,754.78	37,034.70	47,672.37	30,644.10	45,627.89
RENTALS - SHARE CROPS	23,106.39	20,722.00	10,649.36	25,892.72	11,364.61
RECEIPTS, NON-AGRICULTURAL:					
RENTALS - FLAT RATES	17,670.81	12,113.46	16,755.08	20,318.98	23,131.55
TAXES PAID BY TENANTS	3,187.08	2,693.96	4,375.65	5,471.89	4,016.60
ROYALTIES AND PERCENTAGES	76,327.15	105,886.19	89,646.04	58,827.65	84,804.37
SALES OF WALNUTS	67,279.72	47,826.07	50,004.74	44,523.64	67,425.47
TOTAL GROSS INCOME	$331,315.46	$320,638.36	$320,072.36	$282,226.01	$332,286.31
EXPENSES:					
ADMINISTRATIVE AND SUPERINTENDENCE	$ 12,698.91	$ 9,926.23	$ 13,678.51	$ 15,813.18	$ 16,150.55
MISCEL. OFFICE SUPPLIES AND EXPENSES	628.50	1,047.60	3,089.51	3,986.26	1,361.88
AUTOMOTIVE SERVICE	1,933.12	1,645.87	1,629.55	1,575.01	1,927.02
SHARE CROPS:					
STORAGE INSURANCE, HANDLING FREIGHT	135.29	351.00	203.98	241.62	181.32
CARE OF PROPERTIES:					
REPAIRS - BUILDINGS, STRUCTURES AND GROUNDS	1,676.47	6,329.26	5,730.20	10,400.34	7,221.36
WALNUT ORCHARD:					
ADMINISTRATIVE & SUPERINTENDENCE		3,857.73-A	6,341.14	5,184.91	5,173.41
CARE OF ORCHARD	17,113.10	4,200.26-A	16,177.57	15,417.79	17,639.77
CROP HARVEST	15,178.32	9,386.74	10,484.25	6,793.53	16,068.75
PACKING HOUSE AND SELLING EXPENSES	16,592.05	11,415.66	14,215.80	8,398.33	20,913.63
DEPRECIATION		681.50	1,912.31	2,607.55	2,827.79
NET OPERATING EXPENSES	$ 65,955.76	$ 48,841.85	$ 73,462.82	$ 70,418.52	$ 89,465.48
NET INCOME	$265,359.70	$271,796.51	$246,609.54	$ 211,807.49	$242,820.83

A - DECREASE OVER PRIOR YEAR DUE TO CHARGING COST ON CROP YEAR INSTEAD OF FISCAL YEAR BASIS.

IN 1955-56 AGRICULTURAL DEPARTMENT ALSO NEGOTIATED AIRPORT LEASE AT YEARLY RENTAL OF $3,971.30

ZHT:VS
10-7-57

SCHEDULE 11

OPERATING EXPENSES - 1956-1957

CITY DISTRIBUTION DIVISION - PUMPING STATION ACCOUNT

	LABOR	USE OF EQUIPMENT	MATERIAL & SUPPLIES	FUEL OR POWER	CONTRACTUAL SERVICE	TOTAL
STEAM PUMPS:						
CENTRAL	$ 3,986.63	$ 73.40	$ 570.82	$ 25,041.04	$ 38.70	$ 29,710.59
ELECTRICAL PUMPS:						
ALEMANY	166.86	2.00		17.00		185.86
BAY BRIDGE - TREASURE ISLAND	1,243.96	37.00	50.89	7,032.86	71.89	8,436.60
BERNAL HEIGHTS	129.88	12.80		43.96		186.64
CANDLE STICK COVE	162.97	15.90	3.39			182.26
CROCKER AMAZON	337.08	34.40	8.50	2,987.74		3,367.72
FAIRVIEW	280.18	8.80	6.55	282.84		578.37
FOREST HILLS	1,769.47	33.60	85.84	8,860.54	36.00	10,785.45
FRANCISCO STREET	513.86	13.00	1.22		175.00	703.08
LAKE HONDA	132.32	12.80		788.26		933.38
LAKE MERCED	33,766.88	46.80	449.01	87,720.08	8.95	121,991.72
LELAND AVENUE			6.36			6.36
LINCOLN PARK	380.45	27.00	9.73	403.99		821.17
LONE MOUNTAIN	259.50	12.80	1.33	235.52		509.15
McLAREN	222.64	30.40	7.86	728.92		989.82
MT. DAVIDSON	501.02	16.00		653.73		1,170.75
NEWCOMB AVENUE	747.70	34.00	25.38	4,279.42		5,086.50
OLMSTEAD & UNIVERSITY	150.31	16.00		505.05		671.36
PALO ALTO	340.31	9.60		36.28		386.19
POTRERO HTS.	202.39	14.40		239.56		456.35
SUNSET BOOSTER PUMP			7.04			7.04
SUMMIT	1,237.03	43.90	81.21	1,924.75	36.00	3,322.89
TWIN PEAKS	663.60	23.40	12.66	764.57		1,464.23
GENERAL	517.40	4.10	363.74		621.15	1,506.39
	$47,712.44	$522.10	$1,691.53	$142,546.11	$987.69	$193,459.87

SCHEDULE NO. 12

OPERATING EXPENSES - 1956-1957

CITY DISTRIBUTION DIVISION

	LABOR	EQUIPMENT	SUPPLIES	SERVICE	MISCELLANEOUS	TOTAL
SOURCE OF SUPPLIES:						
CENTRAL PUMP SUPPLY	$	$	$ -80.24	$	$	$ -80.24
LAKE MERCED	4,560.00		159.57	159.75	46.00	4,925.32
	$ 4,560.00	$ - 0 -	$ 79.33	$ 159.75	$ 46.00	$ 4,845.08
PURIFICATION:						
COLLEGE HILL	$ 576.34	35.80	819.99	236.59	1.50	1,670.22
LAKE HONDA	382.24	56.20	575.33			1,013.77
LAKE MERCED			36.74			36.74
LOMBARD			43.89	56.96		100.85
SUNSET RESERVOIR			338.79			338.79
UNIVERSITY MOUND	394.13	24.00	1,192.76	145.61		1,756.50
	$ 1,352.71	$ 116.00	$3,007.50	$ 439.16	$ 1.50	$ 4,916.87
TRANSMISSION AND DISTRIBUTION:						
CITY TRANSMISSION LINES	$ 907.45	$ 21.40	$ 248.34	$ 2.55	$	$ 1,179.74
CITY RESERVOIRS	63,840.74	1,327.66	1,731.48	5,013.31	18.55	71,931.74
METER EXPENSE	77,382.84	2,750.58	27,660.93	28,782.92	-339.92	136,237.35
STREET DEPARTMENT EXPENSE	32,159.26	733.85	101.14	796.00		33,790.25
OPERATION OF CORPORATION YARD	23,559.42	1,067.57	7,280.41	12,537.96		44,445.36
SUPERINTENDENCE	83,643.52	1,336.44	604.96	6,745.80	25.00	92,355.72
CONSUMERS' PREMISES EXPENSE	64,350.12	3,775.44	97.69	536.10		68,759.35
REPAIRS - DISTRIBUTION MAINS	222,620.71	10,371.55	17,660.81	24,556.95	656.12	275,866.14
REPAIRS - SERVICE CONNECTIONS	168,664.20	11,915.37	22,679.08	19,898.21	5,486.15	228,643.01
REPAIRS - BUILDING AND EQUIPMENT	13,590.93	29.50	3,223.78	288.80		17,133.01
RECONSTRUCT AND RELOCATE PIPE LINES					6,432.88	6,432.88
	$750,719.19	$33,329.36	$81,288.62	$99,158.60	$12,278.78	$976,774.55
TOTAL CITY DISTRIBUTION DIVISION	$756,631.90	$33,445.36	$84,375.45	$99,757.51	$12,326.28	$986,536.50

SCHEDULE NO. 13

OPERATING EXPENSES - 1956-1957
OUTSIDE SAN FRANCISCO

SOURCE OF SUPPLY	LABOR	USE OF EQUIPMENT	MATERIALS & SUPPLIES	CONTRACTUAL SERVICES	MISCELLANEOUS	TOTAL
SURFACE SOURCES:						
SAN ANDRES RESERVOIR	$ 26,343.29	$ 1,151.19	$ 3,990.09	$ 511.46	$	$ 31,996.03
CRYSTAL SPRINGS RESERVOIR	58,645.29	7,246.27	7,994.53	2,261.01	20.48	76,167.58
PILARCITOS RESERVOIR	24,656.56	2,082.48	2,834.78	601.59	321.36	30,496.77
CALAVERAS RESERVOIR	22,319.59	788.45	820.55	2,591.98		26,520.57
TOTAL	$131,964.73	$11,268.39	$15,639.95	$ 5,966.04	$ 341.84	$165,180.95
GROUND SOURCES:						
SUNOL FILTER BEDS	$ 12,068.61	$ 142.00	$ 1,707.82	$ 1,583.54		$ 15,501.97
PLEASANTON WELLS	888.40	26.35	189.21	697.08		1,801.04
TOTAL	$ 12,957.01	$ 168.35	$ 1,897.03	$ 2,280.62		$ 17,303.01
SUPPLY LINES:						
BAY DIVISION PIPE LINE NOS. 1 & 2 (PENINSULA DIV.)	$ 31,710.29	$ 4,761.85	$ 8,015.64	$ 1,097.18	$ 29.63	$ 45,614.59
" " " " " 3 (PENINSULA DIVISION)	4,865.44	1,789.80	971.90	38.30		7,665.44
STONE DAM AQUEDUCT	6,035.29	257.45		65.60		6,358.34
NILES - IRVINGTON PIPE LINE	790.83	350.70	1.17			1,151.70
BAY DIVISION PIPE LINE NOS. 1 & 2 (ALAMEDA DIVISION)	4,555.20	1,275.60	140.97	164.13		6,135.90
" " " " " 3 " "	2,105.61	1,200.60	415.39	6.35		3,727.95
OTHER SUPPLY LINES & AQUEDUCTS (PENINSULA DIVISION)	8,654.21	257.55	1,194.85	4,132.72	-78.21	14,461.12
" " " " (ALAMEDA DIVISION)	13,671.75	787.60	1,220.17	23.55		15,703.07
CATHODIC PROTECTION			2.78	5,477.36		5,480.14
TOTAL	$ 72,397.62	$10,681.15	$12,262.87	$11,005.19	$ -48.58	$106,298.25
GENERAL EXPENSE:						
PENINSULA SYSTEM	$ 99,112.71	$ 3,117.11	$ 5,504.66	$ 4,381.84	$ 529.65	$112,645.97
ALAMEDA SYSTEM	33,157.33	3,137.87	2,060.34	1,001.21	1.00	39,357.75
TOTAL	$132,270.04	$ 6,254.98	$ 7,565.00	$ 5,383.05	$ 530.65	$152,003.72
TOTAL SOURCE OF SUPPLY	$349,589.40	$28,372.87	$37,364.85	$24,634.90	$ 823.91	$440,785.93

SCHEDULE NO. 14
OPERATING EXPENSES - 1956-1957
OUTSIDE OF SAN FRANCISCO

PUMPING STATIONS	LABOR	USE OF EQUIPMENT	MATERIAL & SUPPLIES	FUEL OR POWER	CONTRACTUAL SERVICE	MISCELLANEOUS	TOTAL
BADEN PUMP	$ 1,542.31	$ 13.65	$ 17.13	$ 29.16	$ 18.80	$	$ 1,621.05
BAY DIVISION PUMP				627.60			627.60
CRYSTAL SPRINGS PUMP	30,005.46	146.75	544.17	94,481.09	315.44		125,492.91
PLEASANTON PUMP	102.30	8.00	30.65	1,281.58	954.00		2,376.53
PLEASANTON TOWNSHIP WATER DISTRICT	115.00			1,419.36			1,534.36
IRVINGTON PUMP	669.60	9.45	5.67	10,186.66			10,871.38
TOTAL OUTSIDE PUMPING EXPENSE	$ 32,434.67	$ 177.85	$ 597.62	$ 108,025.45	$ 1,288.24	$	$ 142,523.83
PURIFICATION							
SAN ANDRES RESERVOIR	$ 5,725.14	$ 510.90	$ 5,092.32	$	$ 1,946.05	$	$ 13,274.41
CRYSTAL SPRINGS RESERVOIR	3,450.89	422.15	9,556.04		252.25	50.38	13,731.71
CALAVERAS RESERVOIR	2,764.59	552.25	17,509.31		988.79	37.94	21,852.88
SUNOL PURIFICATION STATION	69.90		80.98				150.88
OTHER OUTSIDE STATIONS	765.63	1,011.65	1,263.58		336.61		3,377.47
COAST RANGE DIVISION - H. H. P.	922.90	1,442.95	25,396.11		1,866.59	117.02	29,745.57
ALUM TREATMENT	96.87	5.20	6,180.05		120.67		6,402.79
LIME TREATMENT PLANT			15,247.26		1,234.15	909.33	17,390.74
FLUORIDATION STATIONS	1,850.29	152.10	41,731.90		766.09		44,500.38
MILLBRAE LABORATORY	45,558.97	3,942.37	2,150.66		1,746.39	82.98	53,481.37
TOTAL OUTSIDE PURIFICATION EXPENSE	$ 61,205.18	$ 8,039.57	$124,208.21	$	$ 9,257.59	$ 1,197.65	$ 203,908.20
TRANSMISSION AND DISTRIBUTION							
PENINSULA DIVISION:							
ALAMEDA TRANSMISSION LINE	$ 17,127.03	$ 1,114.00	$ 1,600.84	$	$ 2,316.18	$	$ 22,158.05
CRYSTAL SPRINGS AQUEDUCT	15,268.81	406.15	455.69		194.40		16,325.05
CRYSTAL SPRINGS AQUEDUCT (OLD)	10,724.73	526.10	1,466.37		214.08		12,931.28
CRYSTAL SPRINGS AQUEDUCT (NEW)	6,683.39	316.30	239.81		140.35		7,379.85
SAN ANDRES TRANSM. LINE #1 TO COLLEGE HILL	6,589.02	251.15	495.86		234.18		7,570.21
SAN ANDRES TRANSM. LINE # 2 TO SUNSET	6,787.17	160.50	1,241.70		142.26		8,331.63
SAN ANDRES TRANSM. LINE # 3 TO MERCED MANOR	8,779.89	214.15	653.13		139.80		9,786.97
SUNSET TRANSMISSION LINE	9,137.96	506.20	1,453.79		2,157.33	-30.15	13,225.13
PALO ALTO PIPE LINE	1,124.05	375.65	68.77		11.60		1,580.07
METER EXPENSE	22,221.82	2,624.38	3,546.95		259.52		28,652.67
TOTAL PENINSULA DIVISION EXPENSE	$104,443.87	$ 6,494.58	$11,222.91		$ 5,809.70	$ -30.15	$ 127,940.91
ALAMEDA DIVISION:							
NILES REGULATING RESERVOIR	$ 5,142.90	$ 14.25	$ 68.88		$ 180.32		$ 5,406.35
ALAMEDA SUPPLY LINE	1,639.23	127.80	993.95		24.20		2,785.18
PLEASANTON TRANSM. LINE	457.54	15.50	116.83				589.87
METER EXPENSE	37.20	9.05			.70		46.95
TOTAL ALAMEDA DIVISION EXPENSE	$ 7,276.87	$ 166.60	$ 1,179.66	$	$ 205.22	$	$ 8,828.35
TOTAL TRANSM. AND DISTRIBUTION EXPENSE	$111,720.74	$ 6,661.18	$12,402.57	$	$ 6,014.92	$ -30.15	$ 136,769.26
TOTAL OUTSIDE SAN FRANCISCO	$205,360.59	$14,878.60	$137,208.40	$ 108,025.45	$ 16,560.75	$ 1,167.50	$ 483,201.29

CHARGES OF NON-PAYING MUNICIPAL ACCOUNTS
FOR THE FISCAL YEARS 1955-1956 AND 1956-1957

	1955-1956	1956-1957	INCREASE	DECREASE
Hydrants	$259,644.30	$260,643.40	$ 999.10	$
Fire Boats	102.77	117.00	14.23	
Fire Department	23,731.11	27,227.47	3,496.36	
Police Department	4,729.79	4,284.77		445.02
Parks & Playgrounds	179,414.74	173,726.79		5,687.95
Golden Gate Park - Proper	48,915.55	45,701.20		3,214.35
Libraries	2,850.15	2,527.53		322.62
Opera House & War Memorial Bldg.	2,817.64	2,055.36		762.28
Memorial Museum	494.20	523.48	29.28	
Palace of the Legion of Honor	242.48	311.14	68.66	
Aquarium	2,901.00	2,785.26		115.74
Youth Guidance Center	3,823.92	4,075.02	251.10	
Adult Guidance Center	309.28	462.72	153.44	
Purchaser of Supplies	1,515.62	1,591.58	75.96	
Exposition Auditorium	3,084.84	2,337.66		747.18
Retirement Board	207.95	221.83	13.88	
City Planning Commission	153.29	156.13	2.84	
Dept. of Public Works (Public Bldgs.)	88,853.25	87,502.15		1,351.10
" " " " (Street Cleaning)	10,995.42	11,004.06	8.64	
" " " " (Street Work & Sewers)	251.52	271.05	19.53	
" " " " (Park Areas & Pub. Sts.)	6,302.97	6,187.83		115.14
" " " " (Sidewalk Repairs)	54.14	53.44		.70
County Jail	30,772.91	30,715.60		57.31
Dept. of Electricity - General Alarm Station	228.69	238.84	10.15	
" " Public Health	23,316.66	21,525.48		1,791.18
" " " "	1,530.09	1,351.83		178.26
Relief Home	17,344.06	16,190.09		1,153.97
Hassler Health Farm	6,788.65	5,844.12*		944.53
Public Welfare Dept.	347.60	828.13*	480.53	
Registrar of Voters	78.66	68.47		10.19
Municipal Railway	8,988.41	9,292.56	304.15	
" " (Track Repairs)	10.31	12.38	2.07	
" Airport	9,136.14	11,548.78	2,412.64	
Disaster Council	100.11	70.58		29.53
	$740,038.22	$731,453.73	$8,342.56	$16,927.05
Net Decrease				$ 8,584.49

*977-6160 Changed from Hassler Health Farm to Public Welfare Dept. 12/12/56

CHARGES OF PAYING MUNICIPAL ACCOUNTS FOR THE FISCAL YEARS 1955-1956 AND 1956-1957

	1955-1956	1956-1957	INCREASE
SCHOOLS	$ 60,487.79	$ 62,168.06	$ 1,680.27
CHILD CARE CENTERS	1,081.30	1,002.53	- 78.77
TOTALS	$ 61,569.09	$ 63,170.59	$ 1,601.50

BOND REDEMPTION and INTEREST

WATER DEPARTMENT

	Redemption			Interest			Total Redemption plus Interest
	Spring Valley 1928	H.H. Water Service 1947	Total	Spring Valley 1928	H.H. Water Service 1947	Total	
1957-58	$ 1,000,000	$ 924,505	$ 1,924,505	$ 585,000	$144,365.55	$ 729,365.55	$ 2,653,870.55
1958-59	1,000,000	924,505	1,924,505	540,000	130,076.29	670,076.29	2,594,581.29
1959-60	1,000,000	924,505	1,924,505	495,000	114,591.59	609,591.59	2,534,096.59
1960-61	1,000,000	924,505	1,924,505	450,000	99,286.02	549,286.02	2,473,791.02
1961-62	1,000,000	924,505	1,924,505	405,000	84,244.68	489,244.68	2,413,749.68
1962-63	1,000,000	924,505	1,924,505	360,000	68,688.91	428,688.91	2,353,193.91
1963-64	1,000,000	924,505	1,924,505	315,000	52,618.70	367,618.70	2,292,123.70
1964-65	1,000,000	920,328	1,920,328	270,000	36,585.48	306,585.48	2,226,913.48
1965-66	1,000,000	225,328	1,225,328	225,000	23,676.00	248,676.00	1,474,004.00
1966-67	1,000,000	132,682	1,132,682	180,000	15,174.62	195,174.62	1,327,856.62
1967-68	1,000,000	132,682	1,132,682	135,000	7,994.39	142,994.39	1,275,676.39
1968-69	1,000,000	91,882	1,091,882	90,000	814.25	90,814.25	1,182,696.25
1969-70	1,000,000		1,000,000	45,000		45,000.00	1,045,000.00
Due on 6/30/57	$13,000,000	$7,974,437	$20,974,437	$4,095,000	$778,116.48	$4,873,116.48	$25,847,553.48

Original amounts and interest:

$41,000,000	$12,500,000	$53,500,000	4½%	1¼% to 6%

APPENDIX TO

REPORT OF SAN FRANCISCO WATER DEPARTMENT

Table	Description
1	San Francisco Rainfall
2	Rainfall - Watershed Stations
3	No Table No. 3
4	Reservoir Storage
5	Water Drawn from Hetch Hetchy and Auxiliary Sources
6	Source of Water Conveyed to the West Side of San Francisco Bay
7	Water Delivered Through Pipelines
8	Water Delivered at the Consumer's Meters
9	Average Daily Consumption Since 1865
10	Average Daily Consumption by Districts
11	Peak Day Consumption by Districts
12	Meters in Service, San Francisco
13	Meters in Service, Suburban District
14	Official Meter Tests
15	Unit Cost for Meter Maintenance
16	Unit Cost of Meter Installation
17	Unit Cost of Service Connections
18	Street Main Taps and Service Connection Record
19	Comparative Pumping Costs
20	Record of Consumers' Inquiries
21	Record of No Water, Noise, etc.
22	Record of Poor Supply
23	Transmission Mains
24	Pipe Records, City Distribution System
25	Valve Records, City Distribution System
26	Contract Data

TABLE NO. 1

SAN FRANCISCO RAINFALL
at
Federal Office Building
(U.S. Weather Bureau Records)

*****

Month	Season 1953-54 inches	Season 1954-55 inches	Season 1955-56 inches	Season 1956-57 inches	Normal 1956-57 inches
July	T	0.03	.02	T	.01
August	.07	.20	T	.01	.01
September	T	T	.02	.33	.13
October	.34	0.24	.03	1.14	1.07
November	1.88	2.55	2.38	.04	2.27
December	0.82	5.67	11.47	.37	4.07
January	3.11	4.05	8.72	2.84	4.03
February	2.42	1.18	2.03	3.58	3.91
March	4.56	0.29	0.12	2.39	2.78
April	0.82	1.49	1.68	1.09	1.49
May	0.11	.04	.68	3.19	0.59
June	0.14	T	.02	.06	0.15
Totals	14.27	15.75	27.17	15.04	20.51

1956-57 Season 72.9% of normal

TABLE NO. 2

RAINFALL - WATERSHED STATIONS
(Water Department Records)

Station	Season 1953-54 inches	Season 1954-55 inches	Season 1955-56 inches	Season 1956-57 inches	Normal 1956-57 incnes
San Francisco	14.27	15.75	27.17	15.04	20.51
Pilarcitos	34.48	28.40	58.30	38.78	45.24
San Andreas	24.41	22.06	43.03	27.44	37.02
Crystal Springs Upper	20.28	19.64	34.09	22.03	27.91
Crystal Springs Lower	18.67	17.66	36.37	23.63	27.52
Crystal Springs Cottage	20.82	20.07	31.74	17.88	26.66
Lake Merced	17.86	16.20	30.25	18.47	21.17
Pleasanton Pumps	11.66	12.98	21.19	14.10	20.78
Calaveras	17.09	17.18	28.58	16.94	22.19
Sunol	15.02	14.98	24.37	13.98	20.41
Niles	12.53	14.28	23.10	13.86	19.23
Hetch Hetchy	32.83	25.78	52.23	29.09	34.32
Lake Eleanor	42.29	30.43	59.73	35.66	41.75
Moccasin	26.14	20.81	38.58	24.07	26.88

TABLE NO. 4

RESERVOIR STORAGE
(Exclusive of Hetch Hetchy Sources)

MILLION GALLONS

	1953-54		1954-55		1955-56		1956-57	
	Max. July 1	Min. Feb. 11	Max. July 1	Min. Dec. 1	Max. Jan. 27	Min. Nov. 4	Max. July 1	Min. Feb. 6
Calaveras	26,042	19,569	21,664	15,739	32,658	16,210	28,676	17,310
Crystal Springs	18,295	14,953	17,485	16,522	19,705	17,384	17,249	16,047
San Andreas	5,911	4,394	5,740	5,561	6,055	5,886	5,007	3,825
Pilarcitos	800	546	834	556	975	169	616	449
Lake Merced	2,174	2,281	2,311	2,230	2,559	2,192	2,492	2,444
City Reservoirs	277	260	259	282	287	307	311	313
TOTALS	53,499	42,003	48,293	40,890	62,239	41,978	54,351	40,388

TABLE NO. 5

WATER DRAWN FROM HETCH HETCHY AND AUXILIARY SOURCES

MILLION GALLONS

	1953-54	1954-55	1955-56	1956-57
Hetch Hetchy Supply	32,878	39,966	33,083	36,600
Pleasanton Wells and Sunol Filters*	123	None	166	133
	33,001	39,966	33,249	36,733

*No water was received from Pleasanton Wells subsequent to April 1949

TABLE NO. 6

SOURCE OF WATER CONVEYED TO THE WEST SIDE OF SAN FRANCISCO BAY YEARLY AVERAGE, MILLION GALLONS DAILY

	1953-54	1954-55	1955-56	1956-57
Pleasanton Wells	None	None	None	None
Sunol Filters	0.3	None	0.5	0.4
Calaveras Reservoir	21.6	16.4	25.8	30.7
Hetch Hetchy Water Supply	89.9	105.0	85.5	93.6
Totals	111.8	121.4	111.8	124.7

TABLE NO. 7

WATER DELIVERED THROUGH PIPE LINES

Water Transported into San Francisco Consumption Area (1956-57)

San Andreas 54" Pipe Line	32.3	M.G.D.
Baden-Merced Branch 30" P/L	5.8	" " "
Crystal Springs 44" P/L	7.3	" " "
" " 60" "	20.6	" " "
Sunset 60" P/L	23.9	" " "
Total San Francisco Consumption Area	89.9	M.G.D.

Water Transported to storage:

Crystal Springs to San Andreas	33.2	M.G.D.
Bay Division to Crystal Springs	99.9	M.G.D.

TABLE NO. 8

WATER DELIVERED AT THE CONSUMERS METERS SAN FRANCISCO DISTRICT

	1953-54	1954-55	1955-56	1956-57
Average Active Accounts	149,647	150,504	151,457	152,353
Number on June 30	150,149	150,860	152,053	152,653
Metered Delivery (M.C.F.)				
Residential	1,374.1	1,399.4	1,397.0	1,391.1
Com'l & Ind'l	1,955.2	1,939.5	1,961.5	1,958.2
Municipal - Actual	20.1	20.3	20.5	21.2
Municipal - Comparisons	223.8	257.1	255.2	249.1
Total (M.C.F.)	3,573.2	3,616.3	3,634.2	3,619.6
Average (M.G.D.)	73.4	74.3	74.7	74.4

SUBURBAN DISTRICT

	1953-54	1954-55	1955-56	1956-57
Average Active Accounts	751	740	731	695
Number on June 30	743	738	724	666
Metered Delivery (M.C.F.)				
Regular Rates	1,750.0	114.1	120.0	116.5
Civil Divisions for Resale	*	1,075.5	1,209.4	1,311.0
Private Utilities " "	*	869.7	924.4	947.6
Total (M.C.F.)	1,750.0	2,059.3	2,253.8	2,375.1
Average (M.G.D.)	36.0	42.3	46.3	48.8

TOTAL SYSTEM

Metered Delivery (M.C.F.)	5,323.2	5,675.6	5,888.0	5,994.7
Average (M.G.D.)	109.4	116.6	121.0	123.2

*Not listed separately.

TABLE NO. 9

AVERAGE DAILY CONSUMPTION SINCE 1865
CONSUMPTION IN MILLION GALLONS PER DAY

Venturi Meter Records

YEAR	M.G.D.	YEAR	M.G.D.	YEAR	M.G.D.	YEAR	M.G.D.
1865	2.4	1885	17.0	1905	34.9	1925	42.6
1870	6.0	1890	20.4	1910	35.6	1928	50.1
1875	11.7	1895	19.9	1915	42.6	1929	52.1
1880	12.7	1900	25.5	1920	36.2	1930	52.1

Note: At noon on March 3, 1930 the San Francisco Water Department acquired title to the operative properties of the Spring Valley Water Company

Year	San Francisco	Sub-urban	Total System	Max. Day	Min. Day	Max. Month	Min. Month
1930-31	49.2	3.1	52.3	66.7	41.3	57.8	47.0
1931-32	49.3	2.8	52.1	65.6	39.6	59.4	47.5
1932-33	46.4	2.7	49.1	60.4	39.9	54.3	44.6
1933-34	47.3	2.6	49.9	64.3	39.1	53.7	45.1
1934-35	48.1	2.4	50.5	65.4	41.3	58.1	46.2
1935-36	52.3	2.5	54.8	68.0	43.0	62.1	50.3
1936-37	55.1	3.4	58.5	70.7	45.7	63.8	51.8
1937-38	53.3	5.0	58.3	72.4	46.7	65.4	53.4
1938-39	56.9	6.4	63.3	84.6	48.5	77.5	54.8
1939-40	59.6	9.0	68.6	89.5	51.6	76.6	60.9
1940-41	60.7	7.3	68.0	90.0	52.0	77.9	60.6
1941-42	63.5	7.7	71.2	94.5	53.1	85.7	61.7
1942-43	69.2	8.6	77.8	106.9	60.2	92.3	68.6
1943-44	76.1	11.4	87.5	109.9	70.4	101.1	76.8
1944-45	79.0	17.9	96.9	134.9	74.7	116.5	85.2
1945-46	83.7	17.2	100.9	131.9	72.9	115.3	88.0
1946-47	83.3	18.6	101.9	135.6	76.5	117.0	86.2
1947-48	81.3	19.7	101.0	138.3	74.2	122.6	88.0
1948-49	83.3	19.9	103.2	138.3	73.3	124.4	86.4
1949-50	83.1	19.6	102.7	139.1	73.8	120.7	88.0
1950-51	82.8	23.0	105.8	147.7	77.3	126.1	88.6
1951-52	82.9	26.2	109.1	154.0	77.6	130.8	92.1
1952-53	88.5	29.9	118.4	166.8	83.7	140.2	99.4
1953-54	89.7	35.2	124.9	197.0	88.0	157.3	107.2
1954-55	91.1	44.6	135.7	190.0	92.5	166.4	110.3
1955-56	91.3	47.8	139.1	217.5	83.0	176.7	112.8
1956-57	89.9	53.1	143.0	224.1	92.7	179.7	112.7

NOTE: Water Department deliveries for consumption in the major inhabited portion of the northerly 47 square miles of San Mateo County are included in the figures in column headed "San Francisco" and are not included in the figures in column headed "Surburban" in Table No.9.

TABLE NO. 10

AVERAGE DAILY CONSUMPTION BY DISTRICTS

GALLONS

District	1956-57	1955-56	Increase + or Decrease -	% Incr. or Decrease
Summit & Forest Hill	787,759	836,442	- 48,683	- 5.8
Stanford Heights	3,228,247	6,795,661	-3,567,414	- 52.5
Sutro	7,895,575	5,027,664	+2,867,911	+ 57.0
Sunset	40,189,038	37,566,894	+2,622,144	+ 7.0
College Hill	7,280,644	8,295,145	-1,014,501	- 12.2
University Mound	27,898,118	30,565,946	-2,667,828	- 8.7
Merced Manor*	2,616,792	2,199,527	+ 417,265	+ 19.0
Total City	89,896,173	91,287,279	-1,391,106	- 1.5
Suburban	53,066,917	47,809,341	+5,257,576	+ 11.0
Total Entire System	142,963,090	139,096,620	+3,866,470	+ 2.8

*Merced Manor consumption not measured directly. Any inaccuracies would reflect in suburban and College Hill consumption.

TABLE NO. 11

PEAK DAY CONSUMPTION BY DISTRICTS

GALLONS

District	1956-57	1955-56	1954-55
Forest Hill	1,701,000	1,904,000	1,335,000
Stanford Heights	6,846,000	11,950,000	14,306,000
Sutro	12,093,000	10,212,000	3,049,000
Sunset	59,259,000	55,247,000	47,969,000
College Hill	11,421,000	11,573,000	12,943,000
University Mound	38,687,000	42,401,000	39,527,000
Merced Manor	6,332,000	5,074,000	3,821,000
Total City	123,735,000	115,489,000	113,394,000
Suburban	100,380,000	102,054,000	83,705,000
Entire System	224,115,000	217,496,000	190,004,000

TABLE NO. 12

METERS - NUMBER AND SIZE IN SERVICE

SAN FRANCISCO DISTRICT AS OF JUNE 30, 1957

(Compiled from Audit Sheets - June and July)

CLASS OF CONSUMERS	5/8"	3/4"	1"	1½"	2"	3"	4"	6"	8"	12"	TOTAL
Revenue Producing:											
Commercial	20,191	1,011	2,265	2,356	3,859	6	41	299	315	1	30,344
Residential	121,705	708	1,127	257	18						123,815
Docks & Ship.	140	10	30	54	94	2		1	4	2	337
TOTAL	142,036	1,729	3,422	2,667	3,971	8	41	300	319	3	154,496
Non-Revenue Producing:											
Commercial	1,341	25	53	36	37	1	3	17	2		1,515
Residential	845	3	8								856
Docks & Ship.	2				1						3
TOTAL	2,188	28	61	36	38	1	3	17	2		2,374
TOTALS:											
Commercial	21,532	1,036	2,318	2,392	3,896	7	44	316	317	1	31,859
Residential	122,550	711	1,135	257	18						124,671
Docks & Ship.	142	10	30	54	95	2		1	4	2	340
	144,224	1,757	3,483	2,703	4,009	9	44	317	321	3	156,870

Total meters in service as of June 30, 1957			156,870
Less: Extra meters in 944 Batteries - (2727 meters - 944)		1,783	
Extra meters in 33 Consolidations (93 meters - 33)		60	
Non-Revenue meters (temporarily shut-off)		2,374	4,217
Number of Active Accounts as of June 30, 1957			152,653

NOTE: The above meter count includes 626 Automatic Sprinklers for fire purposes. At Dock & Shipping Office Portable meters used on hydrants as needed(not included above) 13-1½", 29-2" meters. At Union Plant of Bethlehem Shipbuilding Corp. 8-1½" meters.

PREVIOUS RECORDS	1952-53	1953-54	1954-55	1955-56	1956-57
Total Meters	153,015	154,176	154,711	156,058	156,870
Increase	1,883	1,161	535	1,347	812
Idle Meters	2,169	2,301	2,059	2,165	2,374

TABLE NO. 13
METERS - NUMBER AND SIZE IN SERVICE
SUBURAN DISTRICT AS OF JUNE 30, 1957
(Compiled from Audit Sheets - June and July)

CLASS OF CONSUMERS	5/8"	3/4"	1"	1½"	2"	3"	4"	6"	8"	10"	TOTAL
Revenue Producing:											
Regular Rates	428	20	41	21	271	20	87	60	2		950
Airport Use	11	5	9	7	19			6	2		59
TOTAL	439	25	50	28	290	20	87	66	4		1,009
Non-Revenue Producing:											
Regular Rates	10				1						11
Airport Use					8						8
TOTAL	10				9						19
TOTALS											
Regular Rates	438	20	41	21	272	20	87	60	2		961
Airport Use	11	5	9	7	27			6	2		67
TOTAL	449	25	50	28	299	20	87	66	4		1,028

Total Meters in service as of June 30, 1957			1,028
Less: Extra meters in 85 Batteries and Consolidations- (428 meters - 85)		343	
Non-Revenue meters (temporarily shut-off)		19	362
Number of Active Suburban Accounts as of June 30, 1957			666

NOTE: The above meter count includes 4 Automatic Sprinklers for fire purposes

PREVIOUS RECORDS:	1952-53	1953-54	1954-55	1955-56	1956-57
Total Meters	1080	1073	1071	1064	1028
Increase	33	-7	-2	-7	-36
Idle Meters	25	10	11	11	19

TABLE NO. 14

OFFICIAL METER TESTS

During Fiscal Year Ending June 30, 1957

PERCENTAGE OF VARIATION

Percentage	0	.2	.5	1	1.5	2	2.5	3	4	5	6	Number Tested Total	Ratio
Fast			1	1								2	25.0%
Slow			3	2								5	62.5%
O.K.	1											1	12.5%
Total	1		4	3								8	100.0%

PREVIOUS TOTALS

Year												
1953	4		1	5	1	1						12
1954	6	2	2	4	2	1	1	1				19
1955	1		4	3	1		1	1				11
1956			2			1						3

Refunds 1956-57 Account of over-registration - $0.00
Increases " " " " under-registration - $0.00

TABLE NO. 15

UNIT COST FOR METER MAINTENANCE

IN SAN FRANCISCO

Year	Meters in use	Total Cost	Cost per Meter	Labor Cost per Meter	Other Cost per Meter
1952-53	153,015	$ 98,561.61	$0.64	$0.349	$0.295
1953-54	154,176	163,556.72	1.06	0.394	0.667
1954-55	154,711	128,442.89	0.83	0.431	0.399
1955-56	156,058	133,630.88	0.86	0.510	0.346
1956-57	156,870	136,237.35	0.87	0.493	0.373

TABLE NO. 16

UNIT COST OF METER INSTALLATION

IN SAN FRANCISCO

	1953-54	1954-55	1955-56	1956-57
Meters Set	1,851	1,853	1,925	1,687
Percent 3/4" and smaller	77.0	79.1	79.2	75.0
Labor	$ 4.41	$ 4.37	$ 8.05	$ 9.59
Supervision	0.61	0.83	0.32	0.32
Meter	30.40	27.88	22.73	38.15
Material	4.66	6.75	4.66	3.08
Equipment	0.22	0.17	0.19	0.23
Paving	1.35	1.49	1.44	1.40
Miscellaneous	0.16	0.17	- -	- -
	$41.81	$41.66	$37.39	$52.77

TABLE NO. 17

UNIT COST OF SERVICE CONNECTIONS

IN SAN FRANCISCO

	1953-54	1954-55	1955-56	1956-57
Services installed	2,809	2,818	2,352	2,405
Percent 3/4" installed	70.2	64.3	48.2	63.8
Labor	$32.03	$38.27	$50.94	$56.90
Supervision	3.69	6.71	1.80	1.89
Material	15.14	14.01	17.20	24.24
Equipment	3.35	3.76	4.26	4.26
Paving	9.12	10.81	15.98	16.67
Miscellaneous	0.67	0.54	- -	- -
	$64.00	$74.10	$90.18	$103.96

TABLE NO. 18
STREET MAIN TAPS AND SERVICE CONNECTIONS RECORD
San Francisco District — June 30, 1957

TAPS ON STREET MAINS

	Wharf	3/4"	1"	1½"	2"	3"	4"	6"	8"	12"	16"	TOTALS
June 30, 1956	301	160,677	7,175	3,835	2,656	821	471	436	332	17	2	176,723
ADD 1956-57	17	104	515	103	64	18	11	24	10	0	0	866
June 30, 1957	318	160,781	7,690	3,938	2,720	839	482	460	342	17	2	177,589

SERVICE CONNECTIONS

ADD	Services connected to street mains, as above	177,589
	"Distributors", being 1 or more additional meter connections to service pipes	3,500
	TOTAL connections of record	181,089
	Disconnected services	26,062
	Net metered live services consisting of 154,496 active meters; less 1,843 extra meters in batteries, plus 2,374 services temporarily shut off. . . .	155,027

Previous Records:	1953-54	1954-55	1955-56
Active	151,875	152,652	153,893
Shut Off	2,301	2,059	2,165
TOTALS	154,176	154,711	156,058
Less extra battery meters	1,726	1,792	1,840
NET	152,450	152,919	154,218

SERVICE INSTALLATIONS
Fiscal Year 1956-57

DISTRICT	Taps	Distributors	Totals
Richmond District	50	10	60
Sunset "	160	71	231
North Market & Western Addition	124	47	171
South Market & Twin Peaks	500	135	635
Waterfront	17	0	17
TOTALS	851	263	1,114

Previous Years	Taps	Distributors	Totals
1953-54	1,132	276	1,408
1954-55	1,234	327	1,561
1955-56	1,091	375	1,466

AUTOMATIC SPRINKLER INSTALLATIONS
October 26, 1932 to June 30, 1957

SIZE	1932-54	1954-55	1955-56	1956-57	Total	Installed Prior to 10/26/32	GRAND TOTAL
4-inch	32	2	3	1	38		
6-inch	169	12	18	23	222		
8-inch	211	11	10	9	241		
12-inch	9	0	0	0	9		
TOTALS	421	25	31	33	510	163	673

TABLE NO. 19

COMPARATIVE PUMPING COSTS

SAN ANDREAS PUMP	1953-54	1954-55	1955-56	1956-57
Water Pumped, Gallons	12,742,790,000	12,998,928,000	11,103,656,000	12,120,946,000
Electric Power, KWH	12,876,800	13,180,800	11,315,200	12,550,400
Power Cost	$ 108,914.72	$ 112,689.18	$ 85,272.97	$ 94,481.09
Labor Cost	22,537.93	25,926.65	27,847.94	30,320.90
Miscellaneous	1,564.98	3,431.13	708.21	690.92
Totals	$ 133,017.63	$ 142,046.96	$ 113,829.12	$ 125,492.91
Cost per Million Gallons	$ 10.44	$ 10.93	$ 10.25	$ 10.35
" " " "per ft.of lift	0.0474	0.0495	0.0466	0.0469

LAKE MERCED PUMP				
Water Pumped, Gallons		2,549,600,000	7,347,900,000	8,723,560,000
Electric Power, KWH		2,280,000	7,914,000	11,320,580
Power Cost		$ 25,200.98	$ 65,735.68	$ 87,720.08
Labor Cost		1,551.11	17,100.44	33,775.83
Miscellaneous		248.11	630.14	495.81
Totals		$ 27,200.20	$ 83,466.26	$ 121,991.72
Cost per Million Gallons		$ 10.59	$ 11.36	$ 11.78

CENTRAL PUMP - Steam pumps taken out of service, electric pumps on automatic operation.

TABLE NO. 20
RECORD OF CONSUMERS' INQUIRIES

formerly called

RECORD OF BAD WATER COMPLAINTS

	1953-54	1954-55	1955-56	1956-57
Stanford Heights	40	19	44	14
Sutro Reservoir	-	17	70	35
Sunset Reservoir	133	118	262	119
Potrero Heights	0	0	1	0
Sunset Lombard	3	0	0	3
College Hill	29	25	66	34
Merced Manor	7	7	12	14
University Mound	32	16	56	37
Forest Hill	2	0	2	5
Presido Heights	1	0	10	1
TOTALS	247	202	523	262

TABLE NO. 21
RECORD OF NO WATER, NOISE, ETC.

(a) Those for which the Department was responsible:

	1953-54	1954-55	1955-56	1956-57
Service or main broken	30	35	62	82
S/O at main or meter	30	9	8	8
District temp'y S/D	33	6	0	0
TOTALS	93	50	70	90
Percentage	17.0%	8.5%	11.9%	15.8%

(b) Those for which the Consumers were responsible:

Choked House Pipes	54	104	166	131
House Valve Closed	73	71	43	41
" Valve out of Order	98	89	100	111
House Pipe Broken	17	19	42	35
False Reports	213	258	169	161
TOTALS	455	541	520	479
Percentage	83.0%	91.5%	88.1%	84.2%
TOTAL NO WATER	548	591	590	569
Noise	-	60	105	80
Miscellaneous	-	251	132	166
Large Bill Complaints	9,286	8,407	8,489	8,232

TABLE NO. 22

RECORD OF POOR SUPPLY

	1953-54	1954-55	1955-56	1956-57
Meter Only:				
Too Small	15	23	13	21
Service Only:				
Adequate	84	110	163	215
Inadequate	599	835	803	796
Meter and Service:				
Too Small	165	289	252	267
Housepiping:				
Note: (Includes valve unless valve only is involved)				
Adequate	3	0	16	42
Inadequate	788	1088	1109	1226
Valve Only	71	128	46	8
Resurveys			158	85
Total number of inspections	918	1,257	1,191	1,268

TABLE NO. 23

LENGTH OF VARIOUS SIZES OF TRANSMISSION MAINS IN FEET

	16" Sub	28"	30"	33"	36"	37"	39"	42"	44"	48"	54"	57"
Alameda	395				122,934							
Crystal Springs No. 1									85,181		358	
Crystal Springs No. 2			669					100			16,757	
Combined Sunset & Crystal Springs P/L No. 3												
San Andreas No. 1									26,850			
San Andreas No. 2											63,344	
Baden-Merced			27,955[A]		2,260	1,560						
Pleasanton			27,432									
Niles-Irvington									15,600			
Bay Division No. 1								3,161(sub)				6,821
Bay Division No. 2								250(risers)			6,066(sub)	
Bay Division No. 3												
Alameda Creek Siphon												
Calaveras									30,570	1,045		
Palo Alto					28,049							
Sunset Pipeline									419		337	
Pilarcitos Aqueduct		7,480		169	648				730			
Stone Dam Aqueduct			501				1,814		2,106	2,894		
Crystal Springs Aqueduct									30	916	492	
TOTAL	395	7,480	56,557	169	153,891	1,560	1,814	5,511	161,486	4,855	87,354	6,821

TABLE NO. 23 (Cont'd)

LENGTH OF VARIOUS SIZES OF TRANSMISSION MAINS IN FEET (Cont'd)

	60"	61"	62"	66"	69"	72"	76"	78"	79"	90"	Total Feet	Miles
Alameda											123,329	23.36
Crystal Springs No. 1	4,948										90,487	17.14
Crystal Springs No. 2	84,317							650			102,493	19.41
Combined Sunset & Crystal Springs P/L No. 3[B]	259							211	7,180		7,650	1.45
San Andreas No. 1											26,850	5.08
San Andreas No. 2											63,344	12.00
Baden-Merced											31,775	6.02
Pleasanton											27,432	5.19
Niles-Irvington											15,600	2.95
Bay Division No. 1	102,131										112,113	21.23
Bay Division No. 2			26,094	78,856			3,867				115,133	21.81
Bay Division No. 3						127,103		43,184		917		
					Spls	5,725	Spls	1,908		271[C]	179,108	33.92
Alameda Cr. Siphon					2,942	93				2,972	6,007	1.14
Calaveras											31,615	5.99
Palo Alto											28,049	5.31
Sunset Pipeline	48,088[D]	24,646									73,490	13.92
Pilarcitos Aqueduct											9,027	1.71
Stone Dam Aqueduct											7,315	1.39
Crystal Springs Aqued.				238		603					2,279	.43
TOTALS	239,743	24,646	26,094	79,094	2,942	133,524	3,867	45,953	7,180	4,160	1,053,096	199.45

A--Does not include 4,276 feet of 30" inside City--Included in Table 24.
B--Does not include contract WD-781
C--Tapers, Valves and Meters
D--Does not include 16,235 feet of 60" from County Line to Sunset Reservoir - Included in Table 24.

TABLE NO. 24

PIPE RECORDS
CITY DISTRIBUTION SYSTEM

Wrought Iron and Steel Pipe

Size	Total Pipe in Ground July 1, 1956	Pipe Laid 1956-57	Removed or Abandoned 1956-57	Total Pipe in Ground June 30, 1957
3/4"	11,967'	0'	50'	11,917'
1"	35,724	0	395	35,329
1¼"	3,728	0	0	3,728
1½"	157,776	407	3,684	154,499
2"	239,544	722	3,620	236,646
3"	27,392	0	0	27,392
4"	3,886	0	0	3,886
5"	804	0	0	804
6"	3,809	0	0	3,809
12"	6,555	0	0	6,555
13"	456	0	0	456
16"	25,587	0	198	25,389
20"	65,417	905	0	66,322
22"	25,309	0	5,200	20,109
23½"	9,087	0	0	9,087
24"	48,092	788	0	48,880
30"	42,880	0	0	42,880
33"	2,409	0	0	2,409
36"	56,864	0	0	56,864
37½"	8,896	0	0	8,896
44"	22,974	0	0	22,974
48"	11,504	0	0	11,504
60"	26,216	0	0	26,216
Total W.I & S.	836,876'	2,822'	13,147'	826,551'

Transite Pipe

6"	17,305'	0'	0'	17,305'
8"	24,872'	0	0	24,872
Total Transite	42,177'	0'	0'	42,177'

TABLE NO. 24 (Cont'd)

Cast Iron Pipe

Size	Total Pipe in Ground July 1, 1956	Pipe Laid 1956-57	Removed or Abandoned 1956-57	Total Pipe in Ground June 30, 1957
2"	26,881'	544'	1,160'	26,265'
3"	60,599	303	2	60,900
4"	502,175	1,892	305	503,762
6"	1,803,256	11,668	1,294	1,813,630
8"	1,571,276	3,655	226	1,580,705
10"	6,100	0	0	6,100
12"	516,718	2,681	411	518,988
16"	313,251	6,670	0	319,921
20"	22,642	0	0	22,642
22"	19,058	0	0	19,058
24"	52,173	0	0	52,173
30"	5,297	0	0	5,297
Total C.I.	4,899,426'	33,413'	3,398'	4,929,441'
Total All	5,778,479'	36,235'	16,545'	5,798,169'
Miles	1,094.409	6.863	3.134	1,098.138

TABLE NO. 25

VALVE RECORDS

CITY DISTRIBUTION SYSTEM

Gates		Service Gates		Blowoffs		Air Valves		Check Valves	
2"	142	3"	487	3/4"	9	3/4"	83	1½"	7
3"	252	4"	536	1"	41	1"	117	2"	10
4"	1,301	6"	378	1½"	271	1½"	453	3"	1
6"	4,220	8"	300	2"	913	2"	303	4"	8
8"	3,921	12"	13	3"	225	3"	5	6"	25
10"	6			4"	494	4"	0	8"	20
12"	890			6"	210	6"	12	12"	3
16"	468			8"	124	8"	283	16"	2
20"	24			12"	20				
22"	20			16"	3				
24"	63								
30"	23								
36"	20								
37½"	2								
42"	3								
48"	1								
Total	11,356		1,714		2,310		1,256		76

Stop Cocks	
5/8"	18
3/4"	139
1"	198
1½"	973
2"	2,668
Total	3,996

TABLE NO. 26
CONTRACT DATA 1956-57

Contract No.	Title of Contract	Division	No.of Bidders	Contractor	Date of Award	Date of Completion	% Complete 6-30-57	Bid Price	Contract Cost to 6-30-57
672	Bypass Guadalupe Trestle	Peninsula	4	M & K Corp.	4/11/55	9/14/56	100	$ 398,387.48	$ 410,093.48
696	Sunol Water System	Alameda	9	Underground Const. Co.	11/26/56	2/1/57	100	35,984.65	36,549.59
704	Excavation & Embankment Balboa Reservoir	C.D.D.	4	Piombo Const. Co.	8/20/56	--	90	362,714.20	325,500.00
730	Electrical Alterations 425 Mason Street	General	4	Republic Elec. Co.	11/13/56	3/5/57	100	7,940.00	7,220.00
734	Construction of Hillsborough Tunnel for C.S. & Sunset P/L's	Peninsula	5	P. Kiewit Sons' Co.	10/24/55	- -	91	1,366,830.50	1,243,964.00
736A	Conversion of Valves for Power Operation	Peninsula Alameda	1	S.F.W.D.	6/11/57	--	--	12,571.76	--
738	Electrical Alterations Peninsula Divn Hdqrts.	Peninsula	3	Mahoney Elec. Co.	2/27/56	6/22/56	100	9,898.00	10,194.00
739	6", 8" & 12" CIM in Panorama Terrace #1	C.D.D.	4	F.T.Fairey	11/21/55	7/11/56	100	31,308.25	31,141.53
742	Excavation & Embankment Sunset Res.-South Basin	C.D.D.	7	Piombo Const. Co.	2/14/56	--	96	758,070.00	728,000.00
744	12" CIM in 8th Ave. bet. Calif. & Fulton Sts. and in Calif. St. bet. 23rd & 29th Aves.	C.D.D.	4	Michael Murphy, Jr.	12/12/55	--	--	63,107.50	- -
745	2" & 6" CIM in Thrift St. bet. Plymouth Ave. & Summit St.	C.D.D.	4	S.F.W.D.	12/27/55	2/1/57	100	8,458.25	7,073.64
760	8" CIM in Chicago Way-Naylor St.-So. Hill Blvd.	C.D.D.	3	S.F.W.D.	6/4/56	7/13/56	100	5,299.25	4,919.64
761	Repaving Street or Sidewalk Openings, 1955-56	C.D.D.	2	Chas. L. Harney,Inc.	6/18/56	6/30/57	100	135,275.00	136,951.56
762	6" CIM in Campbell Ave. & Somerset St.	C.D.D.	3	Michael Murphy,Jr.	6/18/56	8/6/56	100	4,855.75	4,968.73
763	6" CIM in Foerster St., Los Palmos Dr. to Teresita Blvd.	C.D.D.	3	Michael Murphy, Jr.	6/18/56	8/21/56	100	6,885.40	4,840.04
764	Coating Exterior of Water Dept. Bldg.- 425 Mason St.	General	3	Fulton Painting Co.	6/25/56	10/31/56	100	4,985.00	4,985.00

TABLE NO. 26 (Cont'd)
CONTRACT DATA 1956-57

No.	Title of Contract	Division	No.of Bid-ders	Contractor	Date of Award	Date of Com-pletion	% Com-plete 6-30-57	Bid Price	Contract Cost to 6-30-57
765	Relocation of 48" Steel Main in Boylston St. bet. Gaven and Sweeny Sts.	C.D.D.	2	Associated Pipelines,Inc.	7/30/56	9/25/56	100	$ 11,615.25	$ 11,883.48
766	6" CIM in Powhattan & Peralta Aves. & in Mojave & Bradford Sts.	C.D.D.	4	Fred T. Fairey	8/6/56	9/27/56	100	7,910.20	5,782.39
767	Roofing of 425 Mason St. Bldg.	General	1	Malott & Peterson-Grundy	8/6/56	10/9/56	100	15,255.00	14,806.00
768	2", 4" & 6" CIM in Larkin, Francisco & Jones Sts. & Columbus Ave.(Replacement)	C.D.D.	4	Fred T. Fairey	9/4/56	12/7/56	100	19,814.65	20,443.48
769	Relocate 72" B.D.P/L #3 at Calabazas Creek	Peninsula	6	E. T. Haas Co.	3/5/57	6/6/57	100	39,350.00	36,755.69
770	8" CIM in Olympia Way bet. Clarendon & Dellbrook Aves.	C.D.D.	4	Fred T. Fairey	9/4/56	10/9/56	100	4,201.80	3,489.41
771	Gathering & Delivering of the 1956 Walnut Crop	Agriculture	1	San Ramon Farm Supply	8/13/56	11/15/56	100	14,940.00	12,507.13
772	6" & 8" CIM in Congo & Stillings Sts. & Martha & Cortland Aves. (Replacement)	C.D.D.	4	Fred T. Fairey	9/4/56	11/7/56	100	21,106.00	20,111.16
773	4",6" & 8" CIM in Midtown Terrace Subdivision No. 5	C.D.D.	3	Michael Murphy,Jr.	10/1/56	11/7/56	100	17,279.40	16,290.06
774	Relocation of 6" CIM in 19th St. bet. Rhode Island & DeHaro Sts.	C.D.D.	4	S.F.W.D.	9/11/56	9/28/56	100	2,720.50	1,555.18
776	Reconditioning B.D.P/L No. 1 Willow Road to Woodside Rd.	Peninsula	2	Pipe Linings,Inc.	10/22/56	1/24/57	100	136,435.00	136,419.49
778	4",6" & 8" CIM in Upper Market St. Area	C.D.D.	3	S.F.W.D.	10/29/56	--	35	57,105.00	20,000.00
779	San Andreas Creek Alum Treatment Plant	Purif'tn	4	C.J. Collins Co.	10/8/56	12/12/56	100	20,301.00	20,402.83
780	Relocation of 20" & 24" Mains in Corbett Ave. & Portola Dr.	C.D.D.	3	Associated Pipeline,Inc.	11/19/56	2/7/57	100	43,799.00	45,094.81

TABLE NO. 26 (Cont'd)
CONTRACT DATA 1956-57

No.	Title of Contract	Division	No.of Bidders	Contractor	Date of Award	Date of Completion	% Complete 6-30-57	Bid Price	Contract Cost to 6-30-57
781	C.S. & Sunset P/L Sections Hillsborough Bridge to Bigme.	Peninsula	7	McGuire & Hester	3/19/57	--	0	$ 848,902.00	$ 0
782	8" CIM in El Dorado St. east of Michigan St.	C.D.D.	3	Fred T. Fairey	11/13/56	12/24/56	100	2,810.70	2,415.60
783	Replacing Chlorine Bldg. No. San Andreas Outlet	Peninsula	5	Arthur Bros.	3/26/57	6/18/57	100	20,569.00	20,690.30
784	16" CIM in Franklin St., Market to Ellis Sts.	C.D.D.	3	Michael Murphy,Jr.	12/10/56	6/27/57	100	63,108.70	54,790.20
785	Repairing Trestle & Housing B.D.P/L #1 & 2	Alameda	2	C.J. Collins Co.	12/3/56	6/3/57	100	9,905.50	7,952.21
786	Electrical Alterations-- C.S. Pump Station	Peninsula	2	Elec. Maint. & Service Co.	5/28/57	--	0	8,734.00	0
787	16" CIM in Sanchez & Steiner bet. 17th & Haight Sts.	C.D.D.	5	Michael Murphy,Jr.	12/17/56	4/17/57	100	60,960.00	62,805.47
788	8" CIM in Delano Ave., Santa Ynez to Oneida (Replacement)	C.D.D.	4	Associated Pipeline,Inc.	4/9/57	6/4/57	100	12,734.00	12,379.89
789	8" CIM in Glenbrook Ave., Palo Alto to Mountain Springs	C.D.D.	4	Michael Murphy,Jr.	1/21/57	4/24/57	100	8,265.00	5,228.83
790	8" CIM in McKinnon Ave., Barneveld Ave. to 175' east of Upton Street	C.D.D.	4	Michael Murphy,Jr.	3/12/57	--	90	4,330.95	3,900.00
792	12" CIM in Galvez Ave. & Keith St., 3rd to Fairfax	C.D.D.	4	F.T.Fairey	3/5/57	4/2/57	100	27,158.70	25,505.53
793	Lighting in rooms 401, 403 & 701, Water Dept. Bldg. 425 Mason Street	General	7	Decker Elec. Const. Co.	6/18/57	--	0	2,048.00	0
794	4", 6" & 8" CIM in Amherst Terrace Subdivision	C.D.D.	6	A. Dale Williams	5/7/57	6/19/57	100	10,143.30	10,013.31
795	8" CIM in Alabama north of 16th Street	C.D.D.	4	F.T.Fairey	5/21/57	6/25/57	100	5,256.40	5,005.59
797	6" CIM in Holladay Ave. and in Valmar Terrace	C.D.D.	5	Louis L. Cima	6/4/57	--	0	7,144.50	0
803	Painting stairway,corriders, part of 7th floor and all of 8th floor, 425 Mason St. Bldg.	General	3	D. Zelinsky & Sons	6/25/57	--	0	2,193.00	0
805	Painting part of Corporation Yard Office, 639 Bryant St.	C.D.D.	3	Atlas Painting Co.	6/25/57	--	0	1,578.00	0

ORGANIZATION AND PERSONNEL

G. W. Pracy (to Mar. 31, 1957)	General Manager & Chief Engineer
J. H. Turner (after Mar. 31,1957)	General Manager & Chief Engineer
G. D. Burr	Assistant General Manager & Chief Engineer

ENGINEERING DIVISION

H. C. Medbery	Senior Civil Engineer
C. A. Lauenstein	Construction Engineer
J. P. Cava	Office Engineer

CITY DISTRIBUTION DIVISION

O. G. Goldman	Superintendent
A. G. Zecker	Assistant Superintendent

PENINSULA DIVISION

J. E. O'Marie	Superintendent
W. S. Firmstone	Assistant Superintendent

ALAMEDA DIVISION

C. L. Hughes	Superintendent
R. L. Borame	Assistant Superintendent

WATER PURIFICATION

H. W. Tracy	Engineer of Water Purification

COMMERCIAL DIVISION

J. J. Lyons	Manager
J. W. Cooper	Assistant Manager

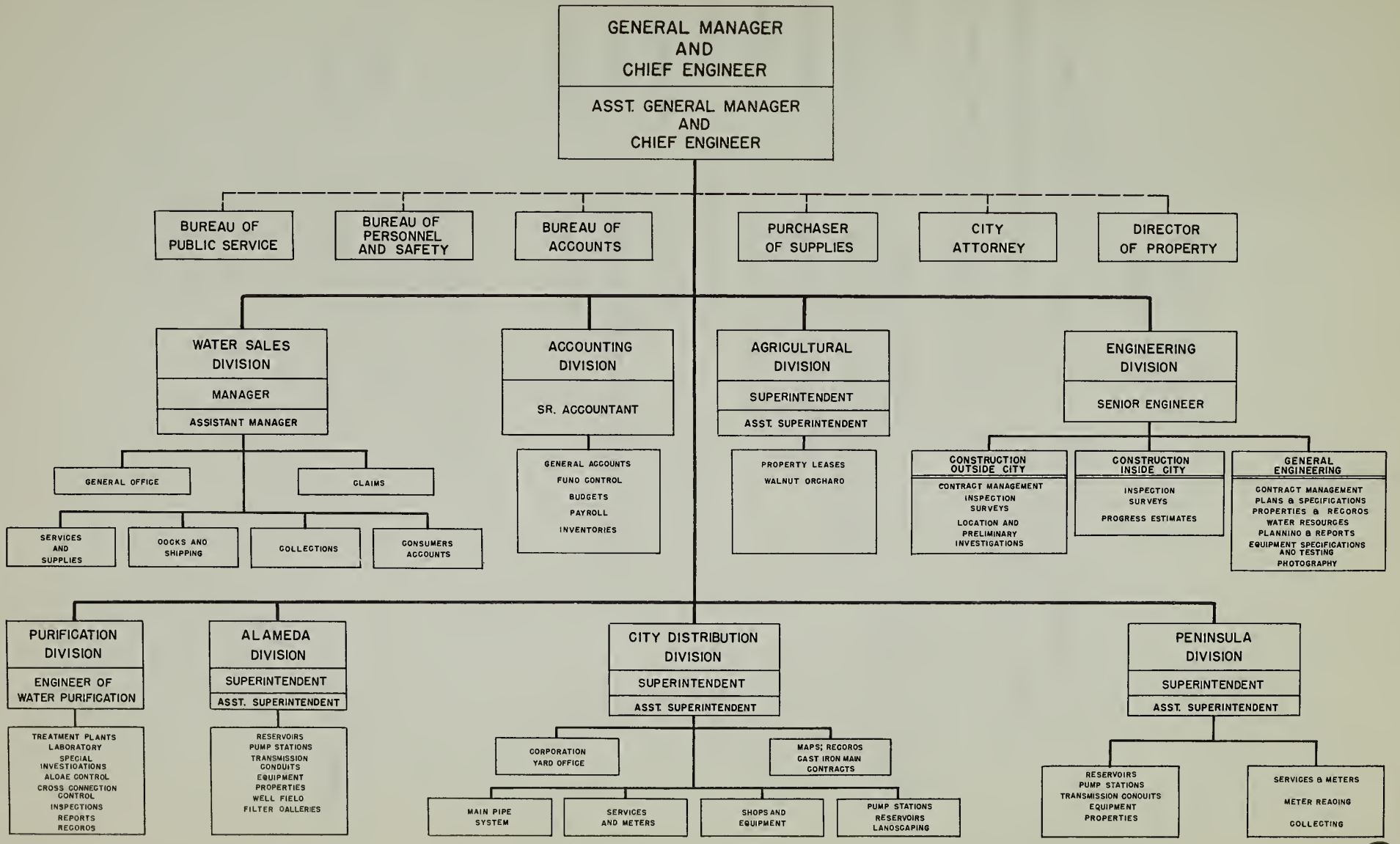
LANDS AND AGRICULTURE

J. G. Brucato	Superintendent
F. Steiner	Assistant Superintendent

ACCOUNTS

Z. H. Taylor	Senior Accountant

CITY AND COUNTY OF SAN FRANCISCO
PUBLIC UTILITIES COMMISSION
SAN FRANCISCO WATER DEPARTMENT
ORGANIZATION CHART



Date. Feb. 8, 1957

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R E T I R E D

1956 - 1957

During the past fiscal year, the following employees were retired from service and recognition is given to their faithful service in the organization:

Employee	Classification	Years' Service
Adolph Andrade, Sr.	Maintenance Foreman-Alameda	19
Arthur Bergeron	Compressor Operator	27
Eugene Daley	Special Collector	26
Alice Garrett	Head Clerk	26
Freddie Gonzales	Serviceman	27
George W. Pracy	General Manager-Water Dept.	27
John M. Sturgeon	Inspector	13

I N M E M O R I A M

Robert Recosky	August 26, 1956	4
Einar H. Eriksen	November 18, 1956	9 months